MUSICIANSHIP THROUGH APPLIED MUSIC THEORY: AN UNDERGRADUATE COURSE WITH GUITAR INTEGRATING EAR TRAINING, IMPROVISATION, AND THEORY

by

Russell Nebelung

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Doctoral Committee

_____
Katherine Strand, Research Director

_____
Ernesto Bitetti, Chair

_____
Kyle Adams

_____
Luke Gillespie

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MUSICIANSHIP THROUGH APPLIED MUSIC THEORY:

AN UNDERGRADUATE COURSE WITH GUITAR

INTEGRATING EAR TRAINING, IMPROVISATION, AND THEORY

The purpose of this semester course is to guide students in developing musicianship, an amalgam of aural skills and basic theoretical fluency that create a musician capable of sight-singing, transcribing, playing by ear, and improvising. In essence this is a course designed to teach rudimentary guitar, theory, and aural skills with the belief that directly training students in the nuts and bolts of how to fluently auralize and visualize musical patterns will create musicians with higher ability and love for the art. In order to accomplish these goals this course will provide students with straightforward written work, guided classroom work, little demand on technique or the learning of pieces, and loads of playing, singing, listening, and repetition. Guitar instruction consists of technique and fretboard knowledge necessary for performing intervals, scales, chords, arpeggios, and progressions, with the ultimate goal being the practice of melodic fragments with the guitar and voice in order to combine ears, mind, and instrument into a cohesive unit.

Nearly all written materials necessary to teach this course are included. These materials are comprised of written listening drills, teaching handouts, guitar charts, melodic patterns, modal song examples, assignment worksheets, and two written exams. Nine pieces from *The Real Easy Book: Tunes for Beginning Improvisers* by the Stanford Jazz Workshop have been chosen as the main source of song material for their simple, repetitive, and riff –based natures, which lend themselves readily to the goals of this course. Singing and listening drills are based largely on and are used in conjunction with the David Burge *Relative Pitch Ear Training Supercourse*. Numerous additions have been made to work with and expand upon Burge's materials. Ear training software such as *Auralia* or *EarMaster* is required for students to test their ear training progress in mastering basic intervals throughout the semester. Students will also be required to record and upload videos of themselves singing and performing on the guitar for exams.

TABLE OF CONTENTS

LIST OF EXAMPLES

LIST OF FIGURES

LIST OF APPENDICES

COURSE ANALYSIS

Project Objectives

1) Design a highly scaffolded and detailed course curriculum for a college level course in musicianship.
2) Create scaffolded supplemental materials for independent student development.

Project Overview

It is my intention to create a collegiate course curriculum in musicianship via applied music theory utilizing the guitar. The purpose of this semester long course is to guide students in the development of fundamental musical skills including basic theory, auralization, relative pitch, and the practical application of these skills to the guitar. As this is a college course designed for adult students in need of developing a specific skill set necessary to becoming musicians, an andragogic approach will be utilized.[1]

I will provide supplemental materials for independent student learning to ensure guided and effective practice necessary for mastery learning, a process that occurs at an individual's pace.[2] Although the materials will be presented in a prescribed order, students will have access to all materials from the outset and may find that they advance more assuredly by practicing them in a different order. Students will be tested via electronic software and video recorded work to demonstrate mastery of practical fundamentals. In class tests will measure their abilities with written theory and guitar fretboard knowledge. Regardless of how they perform in this course students will be thoroughly trained in the process of developing musicianship, thereby allowing them to self-regulate their continued development armed not only with the materials necessary to continue their training after completing this course but also with a positive attitude regarding this skill set and a desire to continue improving it.

[1] Pappas, Christopher, "The Adult Learning Theory – Andragogy – of Malcolm Knowles," *eLearning Industry*, https://elearningindustry.com/the-adult-learning-theory-andragogy-of-malcolm-knowles (accessed February 2, 2017).
[2] Ormrod, Jeanne Ellis, *Educational Psychology: Developing Learners*, 6th ed., (Columbus, OH: Merrill Prentice Hall, 2008), 464-65.

Instructional Goals

1) Raise students' levels of musicianship, which is defined as the practical integration of aural skills and music theory for purposes of being able to understand what one hears and plays and to improvise.
    a. Provide students with scaffolded means for self-development of their own musicianship
    b. Teach students highly effective means for understanding and performing scales, chords, progressions, and melodic fragments on the guitar
    c. Develop students' abilities to a point where they are capable of explaining the fundamentals of music theory, hearing basic musical structures, and improvising simple ideas over chord progressions with voice and guitar
2) Create a positive learning environment where students achieve higher levels of self-efficacy regarding their personal development of musicianship through mastery learning[3]
    a. Theory learning is tied directly to practical application
    b. Performance provides its own reward and verification of advancement

Underlying Questions

1) What is mastery?
    a. How do I achieve mastery?
2) What does it mean to be a musician?
    a. What makes me a musician?

Class Size

Applied music courses require a small class size in order for the instructor to monitor progress of individual students and to provide sufficient space for performance of the instruments. For a standard guitar class to be effective, no more than 15 students can be taught at a time. Although this course has a broader selection of topics to cover than does a standard guitar course, which will lessen the technical demands placed upon students, the lack of time devoted to technique means the class must be of a small

[3] Ormrod, Jeanne Ellis, *Educational Psychology: Developing Learners*, 6th ed., (Columbus, OH: Merrill Prentice Hall, 2008), 356-58.

enough size for the instructor to guide students in what principles of technique are required. As these two effects tend to offset one another, a maximum class size of 15 students still seems reasonable.

The Need for Training in Musicianship

The ability to auralize is paramount to putting theory into practice, i.e. ear training. One must be able to simply pull sound to mind in a clear and controlled manner upon command. Without this basic ability memory will be constantly prone to encoding errors, rapid decay, and reconstruction errors in retrieval that will severely hamper reading, listening, and improvising capabilities.[4] Understand that the words "simply" and "basic" do in no way imply that developing this ability is anything but difficult for many people, and mastering it even more so, which is ultimately the goal of an applied theory/aural skills curriculum. Auralization is the crux of ear training. Current instruction in developing this ability is insufficient for the average student to gain the footing necessary for acquiring fully realized relative pitch.

Many new and prospective college students believe that the secrets of ear training await them behind the doors of these ivory towers. After all, what else of greater importance would there be for a university to teach musicians? Of course, many quickly find themselves disappointed by aural skills courses that fall short of giving them what they need while watching other students progress who seem hardly to need such training at all. A typical course in applied theory/aural skills is a place where students are in effect tested, informed they are lacking, and told to go practice with little hope of improving their abilities. What negligible improvement they experience in class leaves these students demoralized and without recourse, as the instruction they receive for independent practice is typically vague or simply out of the capability of these students to utilize effectively. Therefore, a highly scaffolded course dedicated to the development of auralization is something that would be of great benefit to these students in particular. Utilizing the physical engagement of voice and guitar with an emphasis on mastery learning will bridge

[4] Ormrod, Jeanne Ellis, *Educational Psychology: Developing Learners*, 6th ed., (Columbus, OH: Merrill Prentice Hall, 2008), 196-7, 222.

the gulf between theoretical knowledge and the senses, thereby ensuring the development of the mind's ear as well as students' self-efficacy.[5]

This double focus of the guitar and voice will also bridge the gap that exists for so many students between what they hear and what they can realize on their instrument. In essence, training the ability to play what one hears is training the rudiments of both dictation and improvisation. The very fact that the individual abilities necessary for improvisation and dictation are taught isolated from one another is perhaps the single greatest impediment to most students gaining any traction in their development of aural skills. It is unrealistic to expect significant learning to occur in these environments without combining the essential acts of singing and playing. Certainly if one's ability to auralize is already strong, then they have little need of a course dedicated to this double form of study. Indeed, it is exactly these students who perform well in standard ear training courses. However, for those who have yet to develop their mind's ear, they must apply dedicated effort to this taxing form of training. Although it requires discipline and diligence, the scaffolded and cyclical structure of this course design coupled with learning exactly those skills most musicians have always wished to be taught will push them to achieve progressive results.

Teaching Philosophy

Social Cognitive Theory is a theoretical perspective that focuses on how people learn by observing others and how they eventually assume control over their own behavior. The reciprocal causation model of Social Cognitive Theory, *environment* + *behavior* + *mind*, is a powerful way to understand learning. Albert Bandura's concept of self-efficacy stems from this, his educational model.[6] Self-efficacy can be defined as "a person's self-constructed judgment about his or her ability to execute certain behaviors or reach certain goals."[7] It is an instructor's responsibility to build his students' self-efficacy in order to teach them how to learn desired material. Without this focus on behalf of the teacher,

[5] Ormrod, Jeanne Ellis, *Educational Psychology: Developing Learners*, 6th ed., (Columbus, OH: Merrill Prentice Hall, 2008), 356-58.
[6] Bandura, Albert, "Self-Efficacy," *Encyclopedia of Human Behavior* 4, V.S. Ramachaudran (Ed.), (New York: Academic Press, 1994): 71-81, http://www.uky.edu/~eushe2/Bandura/BanEncy.html (accessed February 2, 2017).
[7] Ormrod, Jeanne Ellis, *Educational Psychology: Developing Learners*, 6th ed., (Columbus, OH: Merrill Prentice Hall, 2008), 356.

real teaching cannot occur. Teaching the development of aural skills is a great challenge, as learning such an amorphous skill set often eludes even the most dedicated students. Failure in this most essential endeavor to becoming a musician creates a negative self-perception that readily transfers to other areas of a musician's sense of self. However, with efficacious instruction and a focus on mastering material, a strong belief in one's ability to learn can be established regardless of one's current level of performance.

Training one's musical ear is difficult to such a degree that, for must students, true advances in aural perception can only be made within what Vygotsky termed the zone of proximal development (ZPD).[8] Although this concept was developed to describe the manner in which children are able to perform a task with the structured aid of a teacher and eventually acquire the internal means by which to autonomously perform the desired skill, the idea applies equally well to students of any age. Although adults are better able to manage their own structured learning by seeking out instruction in various forms, guidance is still required to develop new skills in an efficient manner. Towards this end, there needs to be more cognitive modeling in aural skills instruction regarding how to develop basic levels of musical perception in order to open students' ears before they can be expected to develop the cognitive processes required for actual sight singing and dictation.[9] Of particular benefit is the attaching of verbal descriptors to the unique character qualities of scale degrees and intervals so as to provide sturdy handholds for novice students to gain security in their otherwise blind, and deaf, fumbling for aural purchase. Regardless of whether a student takes to the given associations, they will be able to begin conceptualizing the process of auralization in a more concrete and enjoyable manner. Opening concepts such as this one for class discussion provide great opportunities for students to actively participate in the elaboration process as well.

With this understanding one can readily see how proper scaffolding is essential to the ear training process. It is the role of the aural skills instructor to provide students with this scaffolding to ensure

[8] Ormrod, Jeanne Ellis, *Educational Psychology: Developing Learners*, 6th ed., (Columbus, OH: Merrill Prentice Hall, 2008), 41-42.
[9] Ormrod, Jeanne Ellis, *Educational Psychology: Developing Learners*, 6th ed., (Columbus, OH: Merrill Prentice Hall, 2008), 350.

tangible results in the classroom that can then be repeated independently to accumulative points of mastery. Students must be provided with readily attainable goals in the form of certified levels of achievement from which they can build upon. Extrinsic reinforcers in the form of mastery tests can be implemented to provide this tangible result. Regardless of how a student is performing during class and on their tests in class, they can be certain of their level of mastery and take comfort in the knowledge that additional mastery achievements will continue to improve their grades and aid them in their overall class performance.

Malcom Knowles' theory of andragogy provides an effective framework for structuring any college course, and it coincides well with the ideas heretofore presented. Andragogy is a theory of adult learning/teaching developed by Malcolm Shepherd Knowles in 1980 that is comprised of four assumptions characterizing adult learners. He added a fifth assumption in 1984.[10] These are:

1) *Self-concept: As a person matures his self-concept moves from one of being a dependent personality toward one of being a self-directed human being,*
2) *Experience: As a person matures he accumulates a growing reservoir of experience that becomes an increasing resource for learning,*
3) *Readiness to learn: As a person matures his readiness to learn becomes oriented increasingly to the developmental tasks of his social roles, and*
4) *Orientation to learning: As a person matures his time perspective changes from one of postponed application of knowledge to immediacy of application, and accordingly his orientation toward learning shifts from one of subject-centeredness to one of problem centeredness.*
5) *Motivation to learn: As a person matures the motivation to learn is internal.*[11]

[10] Pappas, Christopher, "The Adult Learning Theory – Andragogy – of Malcolm Knowles," *eLearning Industry*, https://elearningindustry.com/the-adult-learning-theory-andragogy-of-malcolm-knowles (accessed February 2, 2017).
[11] Knowles, Malcolm, as cited in Pappas, Christopher, "The Adult Learning Theory – Andragogy – of Malcolm Knowles," *eLearning Industry*, https://elearningindustry.com/the-adult-learning-theory-andragogy-of-malcolm-knowles (accessed February 2, 2017).

These assumptions led to Knowles' Four Principles of Andragogy:

1) *Adults need to be involved in the planning and evaluation of their instruction.*
2) *Experience (including mistakes) provides the basis for the learning activities.*
3) *Adults are most interested in learning subjects that have immediate relevance and impact to their job or personal life.*
4) *Adult learning is problem-centered rather than content-oriented.*[12]

With regards to the first principle, *Planning and Evaluation*, this is a course that has been highly structured for the benefit of the students in order to aid them in training an elusive skillset. Students will have ample freedom in how they practice these materials and some choice in testing with regards to piece selections. As this is a college course, the instructor decides the means of evaluation for purposes of grading, although students will be able to determine their own measure of success outside of their class grade by their ability to apply the skills they have gained to their own music making.

The second principle, *Experience*, is only possible in a learning environment that has a practical focus. Tasks must be prepared as carefully constructed obstacles for students to overcome with the result being learning. This stage precisely embodies Vygotsky's zone of proximal development. It is exactly this desire for both greater quantity and quality of learning tasks in aural skills training that has manifested in the creation of this course.

The third principle of *Subject Relevance* could be restated as *Efficacy of Material*. Music students understand that being able to take dictation or sing a melody at sight are both powerful abilities that demonstrate the musician's potential for performing other musical feats such as aurally comprehending their place in a piece of music, improvising on their instrument, or composing without an instrument. However, devoting so much time and effort, and often relatively fruitlessly, toward the ends of these traditional courses often results in a lack of motivation or general disappointment for students as they had little desire to achieve these particular two goals. By training the end abilities students desire and *expect*

[12] Kearsley, G., as cited in Pappas, Christopher, "The Adult Learning Theory – Andragogy – of Malcolm Knowles," *eLearning Industry*, https://elearningindustry.com/the-adult-learning-theory-andragogy-of-malcolm-knowles (accessed February 2, 2017).

to learn while attending expensive schools of higher education, students will more readily achieve their learning goals *and* will effect greater dedication to personally developing their abilities. This course sets out to meet these expectations by getting students accustomed to labelling and drilling small melodic and harmonic chunks of musical material to a point of automatic recognition and to be able to recall them on command with both the guitar and voice. Armed with this aggregate skill set students will be able to begin recognizing melodies and harmonic progressions more readily by ear as a result of their ability to break musical material into smaller chunks. Students will also be able to compose or improvise music by combining these musical chunks in effective and satisfying ways. These immediate and direct results will raise students' self-efficacy for both learning and performing music.[13] In addition, those who go on to traditional sight-singing and dictation courses will find the skills developed there to be much easier to assimilate and more valuable.

The fourth principle, *Problem-Centered Learning*, in relation to this course, is the matter of students needing these practical skills of musicianship in order to become competent musicians. Students who had trouble in either a sight-singing or dictation course will find that this training is capable of bridging the gap between those courses and their current level of ability. For those students who are not music majors, this course provides them an opportunity to begin developing the skills necessary to becoming a musician as well as the means by which to continue upon that journey. For many, intermittent and spotty progress is made throughout their musical training in aural skills, which is a serious problem. This course is intended to solve this most significant problem through diligent and inventive practice methods coupled with practical, easy to assimilate music theory and guitar technique.

Consideration of Burge's method

David Lucas Burge defines relative pitch as, "the mind's understanding of what the ear hears." What the ear hears, first and foremost, must be understood on a fundamental level.[14] This he describes as

[13] Ormrod, Jeanne Ellis, *Educational Psychology: Developing Learners*, 6th ed., (Columbus, OH: Merrill Prentice Hall, 2008), 357-58.
[14] Burge, David Lucas, *The Relative Pitch Ear Training Supercourse*, (Fairfield, IA: American Educational Music Publications, Inc., CDs, 2001). All references to Burge's teachings in this paper refer to this ear training course. As

the ear's ability to *perceive* musical sound, which can be defined as a lightning quick recognition of the fundamental components of musical sound such as interval quality. Burge insists that development of this kind of perception is essential to developing fully realized relative pitch. His method consists of many grades of advancement in which one develops levels of mastery within. He utilizes simple yet effective drills for internalizing the basic building blocks of relative pitch, supplies numerous recorded training materials and tests, and consistently reinforces the student's sense of self-efficacy through his attainable levels of achievement and verbalized assurance of the student's abilities.[15]

Burge's method is designed from the standpoint of mastery learning and, as such, is highly scaffolded. Having completed his relative pitch course myself, I found his method to be more effective in developing my aural skills than anything I experienced in my years of schooling. However, even with the aid of this method, I still experienced significant difficulties throughout. For these reasons, I am certain that my natural abilities with regards to developing relative pitch are below average. As such, I encountered many instances in Burge's method where the leap of ability he expected the student to make was simply too great.

To overcome these deficiencies I found new ways of practicing the listening and singing drills Burge supplied. Most of these methods of practice were a matter of mental gymnastics or vocal additions that Burge had not suggested. In the later levels I found it beneficial to return to earlier drills and work those in new ways as well. For these reasons, Burge's method requires more instruction along these lines to supplement his current materials. In addition, many more listening drills are required to help students attain the level mastery that Burge stresses. It is my intent to expand upon Burge's instructional method to satisfy those areas in which I find deficiencies to create a better scaffolded process for mastering relative pitch that can bring even the most untalented listener to the level of a master. The minor key scale degree

Burge's ideas on ear training are regularly repeated and suffused throughout his course, specific citations are impractical.

[15] Ormrod, Jeanne Ellis, *Educational Psychology: Developing Learners*, 6th ed., (Columbus, OH: Merrill Prentice Hall, 2008), 356-58.

drills included here are an example of additional materials that can be recorded and made available for students to supplement Burge's major scale degree drills.

In this course students will progress through their fundamental development of relative pitch utilizing much of Burge's method and materials. Listening and singing drills derived from his method will be performed regularly in class, and students will have access to listening drill recordings for independent training. Burge's *lightning rounds* consist of a 3:30 to 15:00 minute drill in which he plays a set of examples that the student must discern within a few seconds and verbally answer before being supplied the answer and the next example. A lightning round may consist of only two intervals played melodically, such as major/minor seconds, or it may consist of every interval learned to that point played melodically *or* harmonically. Chord identification and scale degree lightening rounds are conducted in the same manner. His *sound rounds* consist of singing a single interval ascending and descending through an octave. One is to sing, "perfect – fifth, perfect – fifth, la – la, la – la," for each instance. His *grand rounds* consist of the same basic method of singing but have the added difficulty of singing the pitch names in place of "perfect fifth." Given the difficulty in singing, "E flat – B flat, E flat – B flat, la – la, la – la," it is instead better to use a chromatic fixed Do solfege combined with a shortened version of the interval name. In this instance one would sing, "Me – Te, Me – Te, P – five, P – five."

<u>Class Format</u>

1) Warmup (5-10 min)
    a. Every class will begin with a warmup period of singing and/or listening. Singing consists of sound rounds and/or grand rounds. Listening consists of lightning rounds. It is important to accustom the students to this warmup routine during the first week of class in order to ensure class time is not lost.
2) Theory (0-20 min)
    a. This time will be used to introduce new theoretical material to students that is to be covered for the day or week. Somedays will focus on practical application of theoretical materials already covered, which will result in no time being spent teaching in this area.

3) Guitar (10-20 min)
    a. The guitar is used in all areas of the course. However, it is necessary to have time devoted to the teaching of the instrument itself. It is during this time that fretboard charts will be utilized in order to teach students how to better understand the instrument from both practical and theoretical standpoints.
4) Songs (10-30 min)
    a. This time is dedicated to learning and performing the jazz pieces slated for this course. This time will also be used to teach particular sections of popular tunes in order for students to more readily assimilate scales and modes.
5) Singing (5-10 min)
    a. Almost every class opens and closes with singing. It is during this time that students are prepared for training new aural skills and convert their guitar work from the day to song.
6) Homework (0-2 min)
    a. Just before students depart the teacher must always remind them of what their training responsibilities are for the week in order to keep everyone on pace. In addition, at least once a week students will be given a written assignment that will require some explanation.

Figure 1: Class Overview

Week	Overview	Monday	Wednesday	Friday
1	Warmup		GR: 8ves	GR: M2s, m2s LR: 2nds
	Theory	Tuning 12 frets = 12 tones Solfege 8ves Sound rounds Grand rounds	Piano layout 7 musical letters Intervals Standard notation 4/4 meter & rhythm Lightning rounds	Chromatic scale Whole tone scales 3/4 meter & rhythm
	Guitar		M/m 2nds	WT patterns Chromatic patterns
	Songs			
	Singing		SR: M/m 2nds	WT scales Chromatic scales
	Homework	1SR/1GR 8ves /day Learn solfege	1SR/1GR M/m 2nds /day LR 2nds WkSh1: Solfege - Fixed Do	WT, Chrom scales 2nds spellings Learn solfege
2	Warmup	WT, Chrom scales LR: M 2nds	WT, Chrom scales LR: H 2nds	WT, Chrom scales LR: M/H 2nds
	Theory	Major scale Scale degrees G scale	Solfege quiz Circle of 5ths Scale cycle	Stacked 2nds = 3rds
	Guitar	G scale - G string G scale: des shape (open)	Riff work: 2nds G scale: Str1 descending	Riff work: 2nds Stacked 2nds = 3rds
	Songs			
	Singing	Additive scale G asc/dec	Additive scale G asc/dec Scale 3rds	Scale 3rds SR: 3rds
	Homework	Sing GM scale: Solfege/SDs Study for solfege quiz GR/LR 2nds WkSh1: due	WkSh2: Scale Degrees PSS p. 156,162,172	Study for 2nds spelling quiz 3rds spellings
	Home testing			2nds recognition
3	Warmup	SR: 3rds LR: M 3rds	SR: 3rds LR: H 3rds	SR: 3rds LR: M/H 3rds
	Theory	Spelling quiz: 2nds Stacked 3rds = All triads	Key Signature: C C scale	Key signature: F F scale
	Guitar	Stacked 3rds = All triads Chord: G G scale: Str4 descending	Riff work 3rds Chord: C C scale: Str 3 descending	Riff work 3rds Chord: F F scale: Str 2 descending
	Songs	"Listen Here"	"Listen Here"	"Listen Here"
	Singing	Extended G scale Scale 3rds Song melody	Extended C scale Scale 3rds	Extended F scale Scale 3rds
	Homework	WkSh2: due GR/LR 3rds	WkSh3: Triad Structures	Study for 3rds spelling quiz
	Home testing			

4	Warmup	LR: M 2nds, 3rds	LR: H 2nds, 3rds	LR: M/H 2nds, 3rds
	Theory	Spellings quiz: 3rds	Chord degrees: Major scale Key of C	Chords: Keys of G,F Mastering Key Signatures
	Guitar	Riff work: 3rds	Riff work: 3rds	Riff work: 3rds
	Songs			
	Singing	Scale 4ths SR: 4ths	Scale 4ths SR: 4ths	Scale 5ths SR: 5ths
	Homework	GR/LR 4ths/5ths WkSh3: due	WkSh4: Major Key Triads	4ths/5ths spellings
	Home testing			3rds recognition
5	Warmup	GR: 4ths/5ths LR: M 4ths/5ths, 8ves	GR: 4ths/5ths LR: H 4ths/5ths, 8ves	GR: 4ths/5ths LR: M/H 4ths/5ths, 8ves
	Theory	Power chords Major Blues	Key signatures: B,E,A,D	Triad: Dim 7th: Diminished 7th
	Guitar	Power chords: E,A,D Riff work: 4ths	Asc scales: Strings 3,4,5,6 Riff work: 4ths	Triad: Dim Riff work: 4ths
	Songs	"Blues by Five"	"Blues by Five"	"Blues by Five"
	Singing	Song melody and bass	Circle of 5ths Scale Cycle	Triad: Dim SR: Tritones
	Homework	WkSh4: due GR/LR 4ths/5ths	WkSh5: Blues Progressions	Study for 4ths/5ths spell quiz Tritone spellings
	Home testing			
6	Warmup	GR: Tritones LR: M 4ths/5ths, TT	GR: Tritones LR: H 4ths/5ths, TT	GR: Tritones LR: M 2nds-5ths, 8ves
	Theory	Spelling quiz: 4ths/5ths Pentatonic Scale		
	Guitar	Pentatonic Scale	Riff work: 5ths Arpeggios: I, IV, V	Riff work: 5ths Arpeggios: I, IV, V
	Songs	"Sonnymoon for Two"	"Sonnymoon for Two"	"Sonnymoon for Two"
	Singing	Pentatonic Scale Song melody and bass	Arpeggios: I, IV, V	Arpeggios: I, IV, V
	Homework	Burge 15 M key SD drills GR/LR TTs/Dim triads WkSh5: due	WkSh6: Major Key Signatures	Study for TT spelling quiz
	Home testing			4ths/5ths/TT recognition
7	Warmup	SR: M triads LR: H 2nds-5ths, 8ves	SR: M triads LR: M/H 2nds-5ths, 8ves	Exam 1
	Theory	Spelling quiz: Tritones		Keys/Scales F,C,G,D,A,E,B Major chord degrees
	Guitar	Cycle triads: ascending	Cycle triads: ascending	Solfege and SDs Gtr scale patterns: 1-8ve
	Songs			Major & Major Pentatonic
	Singing	Cycle triads: ascending	Cycle triads: ascending	Triads: M,m,aug,dim Blues Progressions
	Homework	WkSh6: due GR/LR: M triads, 2nds-5ths, 8ves		Major and Minor
	Home testing			Riffing Blues: Gtr & Voice Major Scale: Gtr & Voice

8	Warmup	SR: m triads LR: M M/m triads	SR: m triads LR: H M/m triads	GR: m triads LR: M/H M/m triads
	Theory	Minor scales Parallel scales Chord degrees: Minor scale	Relative M-m: Rule of 3	
	Guitar	Chord: Am Am scale: A string Am scale: Str5 ascending	Arpeggios: i, iv, v Chords: Dm, Em Minor scales: Ascending	Arpeggios: i, iv, v
	Songs	"Blues in the Closet"	"Blues in the Closet"	"Blues in the Closet"
	Singing	Song melody and bass	Arpeggios: i, iv, v Scale M6ths SR: M6ths	Arpeggios: i, iv, v Scale m6ths SR: m6ths
	Homework	Nebelung 15 m key SD drills GR/LR: M/m triads M/m triad spellings	WkSh7: Minor Key Triads	Study for M/m spelling test 6ths spellings
	Home testing			M/m triads recognition
9	Warmup	GR: 6ths LR: M 6ths	GR: 6ths LR: H 6ths	GR: 6ths LR: M/H 6ths
	Theory	Triads spelling test	Prog: bVII-bIII-bVI-v{V}-i	
	Guitar	Triads: Aug Riff work: 6ths	Prog: bVII-bIII-bVI-v{V}-i Riff work: 6ths	Minor scales: Descending Riff work: 6ths
	Songs	"Revelation"	"Revelation"	"Revelation"
	Singing	Triads: Aug Song melody and bass		
	Homework	WkSh7: due GR/LR: 6ths, Aug triads	WkSh8: Transposing Progressions	
	Home testing			Aug/dim triads recognition
10	Warmup	LR: M 3rds, 6ths	LR: H 3rds, 6ths	LR: M/H 3rds, 6ths
	Theory	Triad inversions	Prog: iii-vi-ii-V-I	
	Guitar	Triad inversions	Prog: iii-vi-ii-V-I	
	Songs	"Mr. PC"	"Mr. PC"	"Mr. PC"
	Singing	Triad inversions Song melody and bass	Cycle triads: descending	Cycle triads: descending
	Homework	GR/LR: triad inversions WkSh8: due	WkSh9: Minor Key Signatures	Study for 6ths spelling quiz
	Home testing			6ths recognition
11	Warmup	LR: M 2nds-6ths, 8ves	LR: H 2nds-6ths, 8ves	LR: M/H 2nds-6ths, 8ves
	Theory	Spelling quiz 6ths Chords: M7,m7,7,mM7		
	Guitar	Chords: M7,m7,7,mM7	Arps: M7,m7,7,mM7	
	Songs	"Tenor Madness"	"Tenor Madness"	"Tenor Madness"
	Singing	M7,m7,7,mM7 Song melody and bass	Scale M7ths SR: M7ths	Scale m7ths SR: m7ths
	Homework	GR/LR: 2nds-6ths, 8ves WkSh9: due	WkSh10: Major Key 7th Chords	7th spellings
	Home testing			

12	Warmup	GR: 7ths LR: M 7ths	GR: 7ths LR: H 7ths	GR: 7ths LR: M/H 7ths
	Theory	Relative scales	Relative scales Modes: Lydian, Mixolydian	Relative scales Modes: Phrygian, Dorian
	Guitar		Lydian/Mixo: Asc Shapes	Phrygian/Dorian: Asc Shapes
	Songs	"Tune Up"	"Tune Up"	"Tune Up"
	Singing	Song melody	Lydian additive/extended Mixolydian additive/extended	Phrygian additive/extended Dorian additive/extended
	Homework	GR/LR: 7ths WkSh10: due	WkSh11: Minor Key 7th Chords	Study for 7ths spelling quiz
	Home testing			
13	Warmup	LR: M 2nds, 7ths	LR: H 2nds, 7ths	LR: M/H 2nds, 7ths
	Theory	Spelling quiz: 7ths "Autumn Leaves"	Modes: Locrian The 7 diatonic modes	Half-Diminished 7th
	Guitar		Locrian: Asc/Des Shapes	Shifting modal patterns: 2-8ves
	Songs	"Autumn Leaves"	"Autumn Leaves"	"Autumn Leaves"
	Singing	Song melody Pentachord scale	Pentachord scale	Pentachord scale
	Homework	GR/LR: 2nds, 7ths WkSh11: due	WkSh12: 7 Diatonic Modes - Gtr	
	Home testing			7ths recognition
14	Warmup	LR: M 2nds-8ves	LR: H 2nds-8ves	LR: M/H 2nds-8ves
	Theory			
	Guitar	Lydian/Mixo: Des Shapes Riff work: 7ths	Phrygian/Dorian: Des Shapes Riff work: 7ths	Riff work: 7ths
	Songs	"Autumn Leaves"	"Autumn Leaves"	"Autumn Leaves"
	Singing	Cycle modes	Cycle modes	Cycle modes
	Homework	GR/LR: 2nds-8ves WkSh12: due		
	Home testing			All interval tests due
15	Exam week Exam 2	Keys/Scales: All Modes: All Scale creation & recognition Progressions: M and m VI7-II7-V7-I7 Gtr scale patterns: 1-8ve All modes, minor pentatonic 7th Chords: M,m,7,mM7 Minor chord degrees Solfege and SDs		
	Home testing	Song of choice solo: Gtr & V Mode cycles: Gtr & V Triad cycles: Gtr & V		

A Handbook for Students

This course is designed for people who are interested in developing musicianship, an amalgam of aural skills and basic theoretical fluency that create a musician capable of sight-singing, transcribing, playing by ear, and improvising. As courses dedicated to sight-singing, transcribing by ear, and improvising are already ubiquitous throughout the collegiate sphere, these particular skills are not focused on here. In addition, these courses are near-invariably predicated upon the assumption of the abilities in musicianship that this course is designed to develop. This course is designed in large part to prepare students specifically to be able to learn and be successful in these courses. By directly training students early in the nuts and bolts of how to hear musically, how to auralize, how to speak music, how to visualize musical patterns on the guitar, and how to do all of this instantaneously as though speaking a native language will create musicians of significantly higher abilities and with a greater love for the art.

In order to accomplish these goals this course will provide students with straightforward written work, guided classroom work, little demand on technique, little demand on the learning of pieces, and loads of playing, singing, listening, and repetition.

Warmups

Students receive constant feedback regarding their ear training progress from opening class warmups. Although independent singing practice, work with Burge's audio materials, and training via the computer are each capable of informing students of their progress, it is the class drill participation that keeps them motivated.

Lightning rounds are a staple of Burge's ear training method as they are a fantastic way for students to gauge their level of mastery over an interval while simultaneously training that interval. It is this aspect of the course in particular that drives student learning. It is one thing to play perhaps ten intervals at the beginning of class, but it is quite another to play four to six times that number in the same space of time. A student makes little to no improvement in the first example, which is common in most aural skills courses. All a struggling student receives with that method is the knowledge that they do not know the answers. In the latter method, however, the student is inundated with example after example

where the instructor plays an interval, waits one to two seconds, grants the answer, then moves on to the next example. There is constant, immediate feedback in such a manner of instruction that focuses the students' minds and actually trains them to differentiate between the intervals being performed. The time used to perform each example in its entirety is three to five seconds. With this degree of speed, it is easy to see how a class can easily move through 50 examples in a matter of minutes. Melodic lightning rounds are to be performed the first day an interval is introduced, harmonic lightning rounds the second, and mixed lightning rounds the third.

Burge found that it is not detrimental for the same examples be used repeatedly, especially when so many are being performed in rapid succession. Although it is unlikely that anyone would begin to anticipate the succession of intervals in these prescribed lightning rounds with only hearing any set three times, doing so would only mean that they were beginning to memorize the sounds of each interval! This process of familiarity is a culturing process necessary for the development of aural skills. As such, it is actually better to listen to these drills over and over again until they become habitual. When one is able to anticipate examples in order, they do so by auralizing what is to follow. This ability to auralize intervals is exactly what we are after in this type of training – aural recognition and recall. Although students may not have the lightning rounds from class to work with on their own, they will have access to Burge's complete set of lightning rounds. Of course, it is possible for the instructor to record and make available his own set of lightning rounds for the students.

Intervals are typically introduced in pairs such as major and minor seconds. Sound rounds are utilized for the initial introduction of each new interval. The class moves quickly to grand rounds thereafter to begin drilling the intervals' spellings as well as their sounds. In the case of seconds, the chromatic and whole tone scales are used as well, as these two scales are comprised entirely of major or minor seconds. The study of these intervals provides a perfect opportunity to develop familiarity with these non-diatonic, symmetrical scales while the scales themselves help cement the nature of these intervals in the minds of the students. Both of these scales also prepare the students for singing chain rounds later with other intervals, as these scales are simply chains of each interval. Major and minor

thirds also chain nicely, as each creates a common symmetrical division of the octave: the augmented triad and the diminished seventh chord.

Theory – A Framework for Music

As it is with mathematics, elementary education is essential for the performance of more advanced procedures, and it is perhaps even more essential for the comprehension of the logics behind them. The fundamentals of music theory such as intervals, scales, chords, arpeggios, progressions, melodic groupings, etc… are necessary for the development of musicianship, as musicianship is the practical realization of these attributes in time and space. Burge defines relative pitch as the mind's understanding of what the ear hears. In order to achieve this state of mind one must first conceptualize a framework to which they can attach the sounds they perceive as music. Thus, the fundamentals of music theory must be drilled to the point of automaticity in much the same way as basic math is in elementary school.[16] It is truly unfortunate that children do not receive this kind of music training in the United States.

Theory – Rhythm

The incorporation of rhythm in this course is basic. As this course is intended for beginning students of music, many will have no formal training in rhythmic notation or execution. The simple meters of 4/4 and 3/4 will be used to introduce students to counting and clapping rhythms during the first week. The teaching handout "Rhythms: Scale Practice Patterns" contains all of the possible rhythms intended for use and more. Methods of incorporation include repeating notes in scales using various rhythmic patterns and moving rhythmic patterns to different beats within riffs. Many additional applications will be demonstrated to students throughout the course.

Theory – Solfege

Two vocalization systems will be used throughout this course: scale degree numbers and chromatic fixed do solfege. Students are welcome to use whichever system works best for their own

[16] Ormrod, Jeanne Ellis, *Educational Psychology: Developing Learners*, 6th ed., (Columbus, OH: Merrill Prentice Hall, 2008), 219.

learning in most instances. However, scale degrees are necessary for understanding chord and scale construction while the fixed Do solfege is essential for singing actual pitches by name.

While the chromatic fixed Do solfege is a very effective system for singing and understanding music, some believe that learning this system is too much trouble. However, the benefits of mastering this system far outweigh what hurdles there are to learning it as well as the disadvantages of not using it, which include cumbersome singing or speaking of flatted and sharped notes as well as difficulty modulating via a moveable system. Students of music are already familiar with solfege, and non-musicians are equally unfamiliar with the usage of both letter names and solfege. Therefore, there is truly little additional difficulty in assimilating this system and little excuse not to use it. In fact, the mere process of assimilating this system goes a long way towards internalizing the ability to think musically. It is really just a matter of learning the pitches by a different set of names.

Although a superior solfege system would be one in which all vowel sounds were identical for each accidental grouping, thus making the system more intuitive, the standard solfege is not arranged in such a manner.[17] Regardless, it is best to stick with the standardized fixed solfege at this time. That being said, I have found that the standard syllables designated for the double sharped and flatted notes are ineffective. I came to this conclusion through personal attempts to utilize "Fis" (and its friends) with confused results. One detriment is how the ending consonants burden the mouth by requiring an extraneous consonant at the end of each syllable. In addition, the fact that this consonant does not occur until the *end* of the syllable creates a more implicit problem of confusing the auralization process of mentally mapping the correct pitch onto the desired aural image prior to singing. As the essence of solfege is to tie word sound with pitch sound, it is imperative that these word sounds be instantly

[17] Siler, Henry, "Toward an International Solfeggio," *Journal of Research in Music Education* 4, no. 1 (1956): 40–43, http://www.jstor.org/stable/3343838 (accessed March 9, 2017). Such a system has been developed by Siler, but it is not yet in regular use.

distinguishable. The vowel sound itself is of the utmost importance in this process. As such, "Fai" is a superior alternative to "Fis." The following table contains this solfege system in its functional entirety.[18]

Figure 2: Solfege

Dai C*x*			Fai F*x*	Sai G*x*		
Di C♯	Ri D♯	Mai E♯	Fi F♯	Si G♯	Li A♯	Tai B♯
Do C	**Re** D	**Mi** E	**Fa** F	**So** G	**La** A	**Ti** B
De C♭	Ra D♭	Me E♭	Fe F♭	Se G♭	Le A♭	Te B♭
		Ma E♭♭			Lo A♭♭	Ta B♭♭

Theory – Intervals

Learning interval spellings is an essential first step in understanding music. With this knowledge one is able to literally spell in the language of music. The fundamental difference between a major sixth and a diminished seventh, for example, is in its spelling. Understanding the fact that a seventh is a seventh as a matter of spelling regardless of steps is a profound experience. Armed with this knowledge a person is primed to understand scale degrees, chord tones, enharmonic equivalents, key signatures, altered chords, modal borrowing, and just about everything else. Although all of the spellings of every interval need to be hardwired into students' brains, doing so takes time and a considerable amount of effort. For this reason, spellings are to be learned only as each interval is introduced for aural study. In this way the spellings will all be learned in turn and immediately tied not only to their sounds, but also to their shapes as performed on the guitar. This method also creates an opportunity for students to live in a world of thirds, so to speak, for a solid two weeks before moving on.

[18] Shearer, Aaron, *Learning the Classical Guitar, Part 2: Reading and Memorizing Music*, (Pacific, MO: Mel Bay, 1990), 209. Shearer developed a system that is nearly identical to the one I describe.

Computer software such as Auralia or EarMaster will be used to test students' abilities to aurally recognize all intervals from the minor second through the octave. Students may take tests as many times as desired throughout semester to achieve mastery and attain higher grades.

Theory – Scales

The idea of building scales from intervals is immediately introduced with the chromatic and whole tone scales by chaining together strings of minor or major seconds respectively in the first week of class. These scales have the added benefit of being non-diatonic, which is doubly beneficial. First, students get comfortable with the sounds of non-tonal music at the outset of the course. This familiarization prevents any feelings of discomfort that may have arisen later in the semester otherwise. Secondly, students immediately develop the confidence that they will be able to learn isolated intervals. There is no better way to know that you are singing an interval based on the quality of that interval and not some outside structure, such as a diatonic scale, than by stacking one such interval on top of another in succession.

The first diatonic scale introduced is G major in week two. This scale is the best choice to begin with on the guitar as it has the simplest key signature among scales that are easiest to perform on the instrument. As the guitar does not have an open C or F string, scales built on these two keys are not reasonable choices with which to begin. The G scale is first demonstrated with a single string pattern on the G string and is then used to introduce the first movable scale form, a descending three notes per string pattern beginning on string 1. It is important to note that the G scale in first position is an open string pattern. In week three the remaining descending movable forms beginning on strings 2, 3, and 4, respectively, are used to teach the F, C, and G major scales in second position. In week five the four ascending shapes beginning on strings 6, 5, 4, and 3, respectively, are used to teach the open E, A, D and G major scales in first position.

Figure 3: Single String G Major Scale

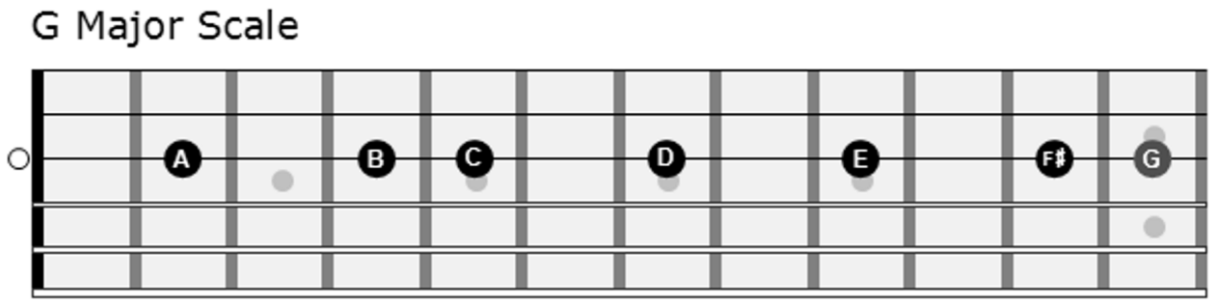
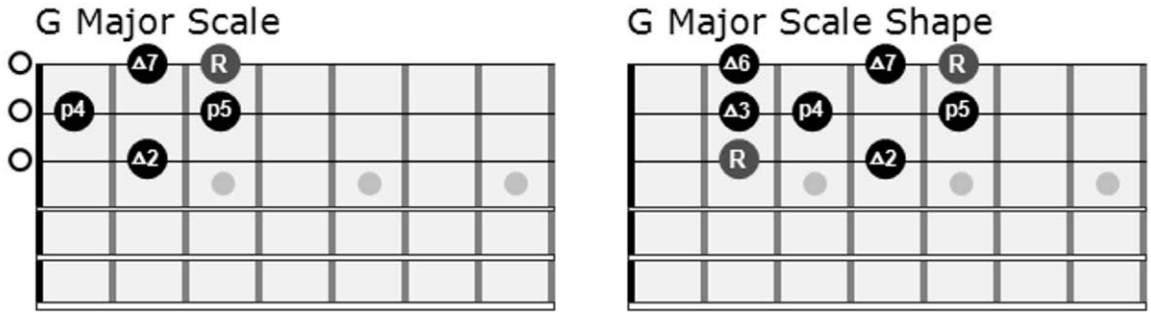


Figure 4: Descending G Major Scale and Descending G Major Scale Shape



The major and minor pentatonic scales are introduced in week six to begin working with the blues. They are compared with one another in both relative and parallel terms, although emphasis is placed on parallel learning. In this way they can be more easily comprehended in terms of combinations of riffs, thus resulting in scale degrees being more thoroughly learned. The minor pentatonic functions as both a preview of the natural minor scale and minor keys, as it contains five of the seven notes of the natural minor scale and is used frequently in major blues. Both scales provide excellent frameworks for learning the remaining modes (with the exception of Locrian). In relation to the diatonic major scale, the major pentatonic is missing scale degrees 4 and 7, the only tones altered by the Lydian and Mixolydian modes. In relation to the diatonic minor scale, the minor pentatonic lacks scale degrees 2 and 6, the only altered tones in the Dorian and Phrygian modes. With these two pentatonic scales mastered, learning the three major and minor modes can be as simple as plugging in the correct two missing scale degrees. In fact, much guitar soloing is conducted in exactly this fashion.

Introduction of the natural minor scale is withheld following Exam 1 in order for the class to focus on the development of scale degrees, chord degrees, and pieces in major keys prior to complicating matters with the minor mode. The ascending minor scale shapes are utilized in week eight to teach the keys of A minor, D minor, and E minor. The descending scale shapes are taught in week nine. For reasons of simplicity and focus, the natural minor scale is used with almost no modification in its construction. It is introduced with the concept of parallel scales so as to teach it with the jazz mindset of ♭3, ♭6, and ♭7 scale degrees. From this perspective the inclusion of the major 7 scale degree and its subsequent creation of the harmonic minor scale, which will not be practiced, is easily explained.

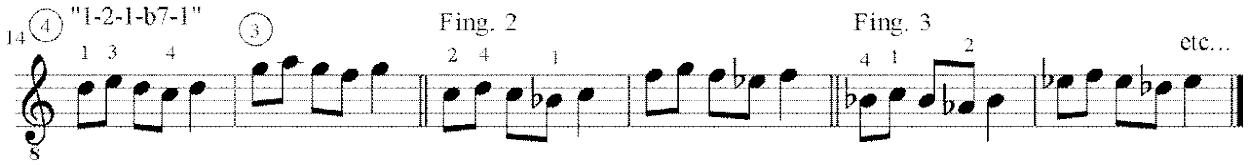
The harmonic minor scale is included solely for harmonic purposes, meaning usage of the V chord in minor pieces, hence the origin of the harmonic minor scale. Learning how to perform only the major scale is intensive on the guitar, and the addition of the natural minor scale is a considerable challenge. Thus it is better to cover all seven diatonic modes and to save the altered scales of the harmonic and melodic minors (along with their respective modes) until after this knowledge is mastered.

Teaching of the modes begins in week twelve, after sufficient time has been allotted for students to come to an understanding of the relationship of the natural minor scale and the major scale in terms of theory and guitar performance. At this time, relative scale relationships are taught in addition to parallel relationships. The class will have both parallel and relative scale pattern sheets available for learning these materials. Relative scale relationships initially receive focus to explain chord-mode associations and structure. Parallel scale relationships are the focus of practical learning and application of material. As students by this point in the semester have a strong understanding of ascending and descending scale shapes, modes are taught in larger groupings. Over the course of weeks 12-14 all ascending and descending shapes of Lydian, Mixolydian, Dorian, Phrygian, and Locrian are covered. By no means is mastery of this material expected at this point. Instead, the goal is for students to have a complete understanding of the seven diatonic modes as well as their relationships and construction on the guitar.

Theory – Riffs (Melodic Fragments)

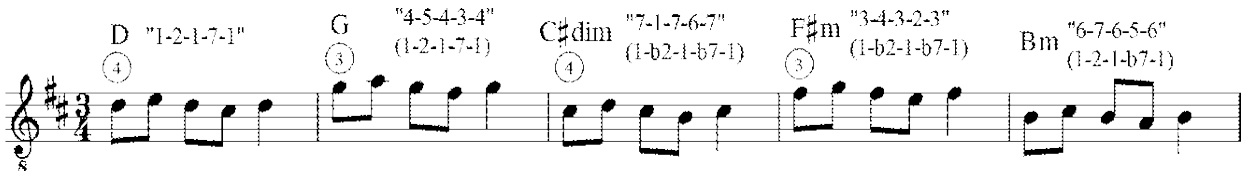
Riffs, or melodic fragments, comprise the nexus of this course. Practicing these with the guitar and voice combine ears, mind, and instrument into a cohesive unit. In singing the patterns students are learning to auralize and recognize particular intervals in a musical context, thus tying them into interval training. Singing each riff with each possible interval variation strengthens the development of these skills. Singing a specific variation through the circle of fifths hones the ear to a specific interval combination and aids in hearing chord progressions.

Example 1: Riffing 2nds: Circle of 5ths



In singing a single riff through scale fifths a student is able to perform each variation of a particular riff in turn within their respective harmonies, simultaneously culturing the ears' sense of chord degrees and their respective modes as well as the I – IV – vii° – iii – vi – ii – V – I chord progression.

Example 2: Riffing 2nds: Scale 5ths



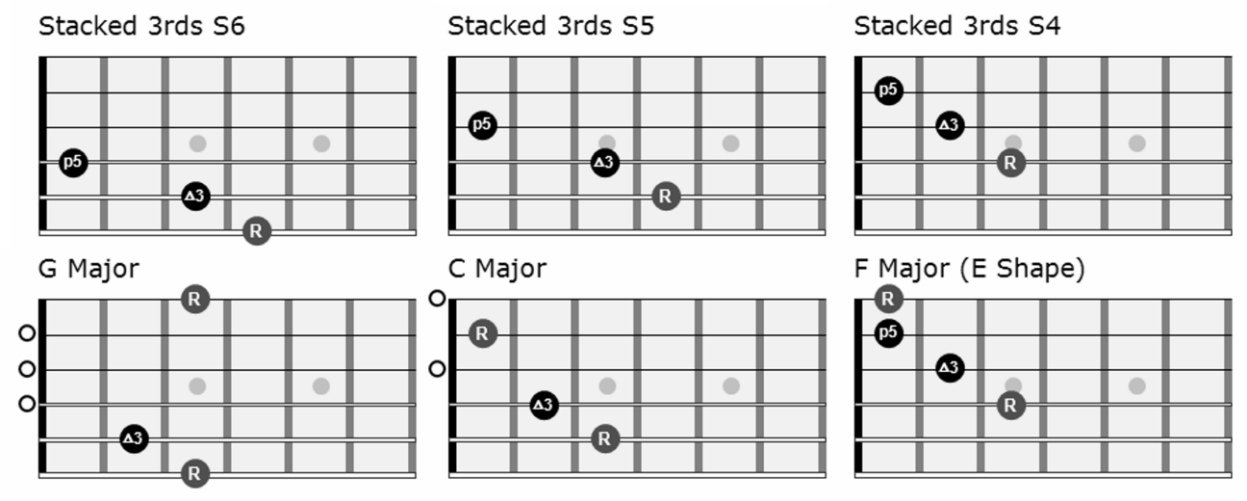
Practicing this material with the guitar connects the mind's ear with the fingers, thus developing the ability to improvise and memorize with a complete knowledge of what is being performed. Although working this material in a strict fashion may be difficult, doing so will guarantee fantastic musical development for those willing to put in the effort. Regardless of the level of mastery developed, students

will be able to start mixing and matching riffs that catch their ear and playing them over backing tracks readily available online. In effect, they will be realizing the dream of playing and inventing their own guitar solos thanks to a readily assimilated learning process. The "Practicing Riffs" teaching handout elaborates on methods for utilizing this material to its fullest.

Theory – Chords

Basic chord structure is begun in weeks three and four in conjunction with the introduction of interval thirds. Chords are taught on the guitar as stacked combinations of major and minor thirds, thusly introducing the G, C, and E (strings 1-4) chord shapes. These are used to teach the chords G, C, and F respectively. Although all four types of triads are introduced at this time, students begin their training learning to play only major chords.

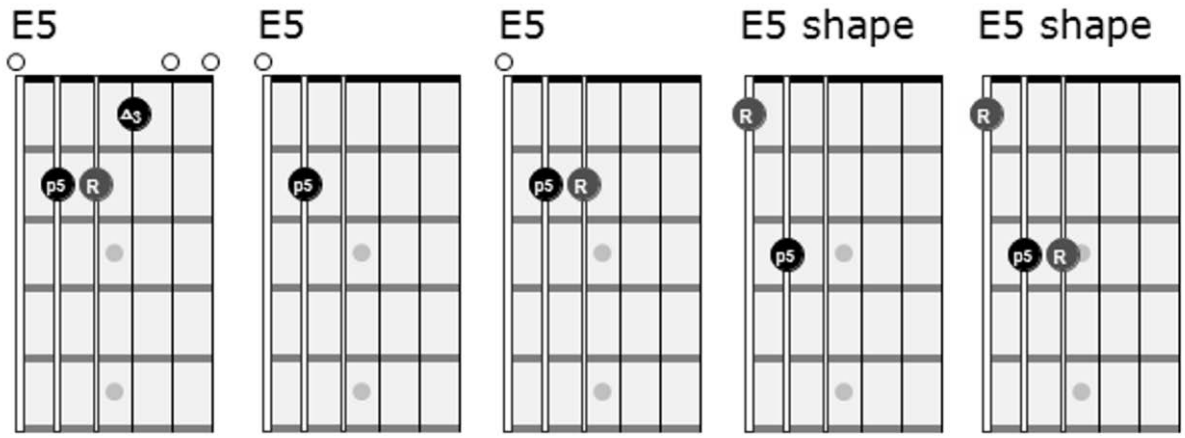
Figure 5: Chords: Stacked 3rds



In week five things start to get fun with the introduction of power chords. These are used to aid in the learning of perfect fifths and perfect fourths as well as to begin playing the blues. Learning how to create a perfect fifth and a perfect fourth on the guitar is exactly the same as learning how to play power chords. The power chord shape of an open fifth is one of the easiest harmonic structures to master on the

guitar, and has the added benefit of being immediately moveable to any desired key.[19] Even novices will have the ability to play a blues progression utilizing this shape anywhere on the neck. They will also have the option of using the full power chord, which is a three string pattern that includes the octave above the root (a fourth above the fifth). It is slightly more difficult to master than the two string pattern. It is this pattern that forms the foundation of the chord shapes E, A, and D, which students who are capable of performing full bar chords will be able to make use of for performing songs. The basic blues riff of an open fifth followed by a major sixth – a pattern that is continuously repeated throughout a blues progression – can be utilized as well by more advanced students. The diminished seventh chord is also introduced in order to aid students in developing their sense of tritones in week six.

Figure 6: E Chord Shape Power Chord Formation



Focus shifts to minor chords in week eight along with the learning of minor keys. By this point students should have developed a level of mastery with major chords such that they are able to assimilate minor chords into their repertoire with ease. Indeed, they will be able to ease into their first song with a minor chord, "Blues in the Closet," as it contains only one minor chord, Gm7. Three of the remaining five pieces are in minor keys and will provide sufficient opportunity for students to familiarize themselves

[19] The easiest shape is the interval of the fourth, which can be and often is performed as a power chord on the guitar in place of an open fifth when performing with a bassist. This interval is played by simply strumming strings 6 and 5, 5 and 4, or 4 and 3 on the same fret.

with playing minor chords. Augmented triads are revisited in week nine to help students in developing their minor sixths.

The concept of chord inversions is covered in week ten. Although this is an important subject, it does not receive much coverage in this course. Students will be taught how to play inversions on the guitar and the importance of visually recognizing shapes when not in root position, but developing aural recognition is reserved for another time. The goal of this course is to prepare students to be able to learn to recognize inversions by ear, not necessarily to train them to do all such things within one semester. This information will be invaluable in the learning and performing of the sample basslines included with the songs from *The Real Easy Book*.[20]

The theory behind seventh chords is covered in week eleven, after sufficient time has passed for students to develop a basic level of ability with performing, understanding, and hearing major and minor triads. The four varieties of seventh chords based on the combinations of major and minor triads with major and minor interval sevenths are taught. These are the major seventh, minor seventh, dominant seventh, and minor-major seventh chords. It is important to cover all four of these combinations so as to guarantee a complete understanding of seventh chord construction. Although the minor-major seventh chord is rarely found in classical music, it is found with some regularity in the medium of jazz. To wit, a C minor-major seventh arpeggio is written directly into the tune "Tenor Madness" used in this course. The half-diminished seventh, or minor seventh flat five, is covered in week thirteen along with the Locrian mode as it is the naturally occurring seventh chord on the diminished triad in a diatonic scale. This chord is used extensively in popular music and jazz with the $ii^{\emptyset}$ – V7 – i7 progression, although it does not receive significant coverage in this course as it lies outside of the scope of what can reasonably be covered with regards to guitar performance.

[20] Stanford Jazz Workshop, *The Real Easy Book: Tunes for Beginning Improvisers*, Edited by Michael Zisman, (Petaluma, CA: Sher Music Co., 2005).

Theory – Progressions

The two most important progressions for musicians to master early are I – IV – V and i – iv – v(V). In addition to these chords being the most commonly used chords in a key, they are the only chords that align with key quality. This is to say that in a major key the only major chords are I, IV, and V, while in a minor key the only minor chords are i, iv, and v. New students of theory can lock onto this information with a kind of mantra, stating this fundamental fact over and over again until it becomes a part of their psyche. Armed with this information, when a student is asked to produce all seven chord degrees of a given key, they will be able to get these three immediately correct and then work out the remaining four through deductive reasoning. Quite simply, the remaining chords, if in major, must be three minor and one diminished while, if in minor, the three remaining chords must be three major and one diminished. The only additional information necessary in order to guarantee chord degree mastery is the relative relationship between major and minor keys. Once one knows that vi is the relative minor of I or that ♭III is the relative major of i, then it becomes a simple matter to place the lone diminished chord between them. One could also simply remember that the diminished chord is below I in major and above i in minor.

Blues progressions are perfect for driving home these chord degrees (with the exception of v in minor, which few pieces are wont to use). In addition to this esoteric reasoning for this course's extensive use of the blues, this music is supremely influential in all forms of popular music and, as such, is always popular with students. What puts most students behind a guitar and in front of an instructor is the desire to learn how to play the music they love, which undoubtedly shares some part of history with the blues.

In teaching new chord progressions that incorporate the remaining chord degrees from the minor key, the progression ♭VII – ♭III – ♭VI – v(V) – i is used. In doing this the intimidating labels of ♭VII – ♭III – ♭VI are unmasked by the correlation with their relative major counterparts of V – I – IV. Teaching this progression is a highly effective means to help students master minor chord degrees as well as relative relationships. In major keys the corresponding progression is iii – vi – ii – V – I. Of course, the iii

– vi – ii progression equates to v-i-iv in minor. It is at this point that the value of learning the minor v is elucidated, not to mention its frequent literal use as v in Spanish and Latin classical guitar literature not covered in this course.

The circle of fifths is utilized not so much as a chord progression as it is a framework for riff practice throughout this course. Scale fifths, which are the circle of fifths contained within a scale including the tritone, are used for exactly the same reason and can be found in the song "Autumn Leaves," which is introduced at the end of the semester in order to build complete harmonies on this key spanning progression. Although both the ii – V – I and ii° – V – i progressions are included within the minor version of scale fifths found in "Autumn Leaves," "Tune Up" has been included to focus on jazz music's most popular ii – V – I progression. The minor ii° – V – i progression does not receive significant attention because the teaching of diminished chords in this course is marginal due to the limits of time and level of difficulty in assimilating the additional information.

Theory – Keys

The teaching handout "Mastering Key Signatures" facilitates the learning of key signatures throughout the semester by teaching students the circle of fifths as well as how to calculate any key signature from having memorized seven consecutive key signatures. The keys of G, C, and F are covered in weeks two through four, which is to say that their key signatures, scales, and chord degrees are taught. The keys of B, E, A, and D follow in week five.

Minor keys are introduced in week eight, following Exam 1, with A, D, and E minor. No additional specific keys are covered past this point in the semester outside of songs. There are a number of songs in the first half of the semester in the key of B♭ major that are to initially be taught and performed in the key of C major. At this point in the semester, however, they can be performed in B♭ along with "Blues in the Closet" in week eight and "Tenor Madness" in week eleven. Students' familiarity with D minor will be strengthened in week nine with "Revelation" while they will return to D major in week twelve with "Tune Up." C minor is added in week ten with the advent of "Mr. PC," and

week thirteen completes the song cycle with a return to E minor in "Autumn Leaves." The process of transposition is covered in week eight in order to aid students in developing fluency between keys, chords, and progressions. The teaching handout "Transposing" covers this material.

One of the fastest methods available for developing intimate familiarity with all 15 major keys is to delve into Burge's entire CD of scale degree drills covering all 15 major keys.[21] Not only do these drills hone the practitioner's sense of scale degrees, but they also demand the listener answer with note names for the majority of each drill. It is recommended that the student take this opportunity one step further and choose to answer using fixed solfege in order to solidify this skill as well. Numerous other methods for personal development using these drills are included in the teaching handout "Working with Burge." The instructor is also able to record a set of scale degree drills for the 15 minor keys using the sets of written drills included here for students to use independently.

Guitar

This class is designed to teach nascent beginners how to play the guitar. Although no previous knowledge of the instrument is necessary to succeed in this course, dedicated physical and mental practice of the instrument is required. This course focuses on the development of guitar techniques and fretboard knowledge necessary for the performance of intervals, scales, chords, and arpeggios. Although songs will be learned and performed, only basic blues forms are required for memorization.

The guitar is a veritable labyrinth that must be navigated in order to execute musical ideas. The traditional classical guitar with 19 frets has a total of 118 possible notes spanning three octaves and a fifth: 6 strings x (18 frets + 1 open set) + 4 notes on fret 19 = 118. The 6 string electric guitar with 24 frets has a total of 150 possible notes spanning four complete octaves: 6 strings x (24 frets + 1 open set) = 150. To put these numbers in perspective, the full scale piano has only 88 keys spanning seven linear octaves and a minor third. Unlike the piano, the guitar is not arranged in linear fashion, nor does it have only one note of each pitch class. Rather, the guitar is arranged in a grid of strings and frets that continuously

[21] Burge, David Lucas, *The Relative Pitch Ear Training Supercourse*, (Fairfield, IA: American Educational Music Publications, Inc., CDs, 2001): Level 4 (Lesson 30).

overlap notes of the same pitch. Using the 24 fret electric guitar as a benchmark for ease of comprehending figures, the guitar has only 10 notes unique in location, 9 notes in 2 locations (18 overlapping notes), 10 notes in 3 locations (30 overlapping notes), 9 notes in 4 locations (36 overlapping notes), 10 notes in 5 locations (50 overlapping notes), and 1 note in 6 locations (6 overlapping notes): 10+18+30+36+50+6 = 150. Although the highest notes on the lowest strings receive little use, these numbers still stagger the mind – especially when performing!

To make matters worse, unlike string instruments of the violin family, the guitar has an asymmetrical tuning and two more strings than a violin. The guitar's tuning of consecutive perfect fourths between strings 3 through 6 is the same as that of a bass but an octave higher. The two additional strings added above this set are also tuned a perfect fourth apart, although they are offset down a half-step from the anticipated perfect fourth between strings 2 and 3. The standard guitar tuning is therefore P4-P4-P4-M3-P4, or E-A-D-G-B-E. People for whom this information is new may find themselves asking why the guitar would be tuned in such a fashion. The answer is simply that this tuning allows for the performance of chords on the instrument by a species of people with only four fingers and one thumb per hand.

It is for these reasons that learning to read and play guitar music requires incredibly high degrees of effort be expended in deciphering *how* to play something on the instrument. As a result, guitar players often find themselves so distracted by the act of playing that they have difficulty in focusing on listening in order to comprehend what they are playing. In addition, much popular teaching of the instrument consists of a "plug and play" attitude whereby students are given shapes with names to create with one hand while strumming with the other. There is often very little comprehension of the instrument or of the music being performed. Most teachers also introduce students to reading in the form of tablature, which only perpetuates a mathematical grid conception of the instrument and, thereby, music in general.

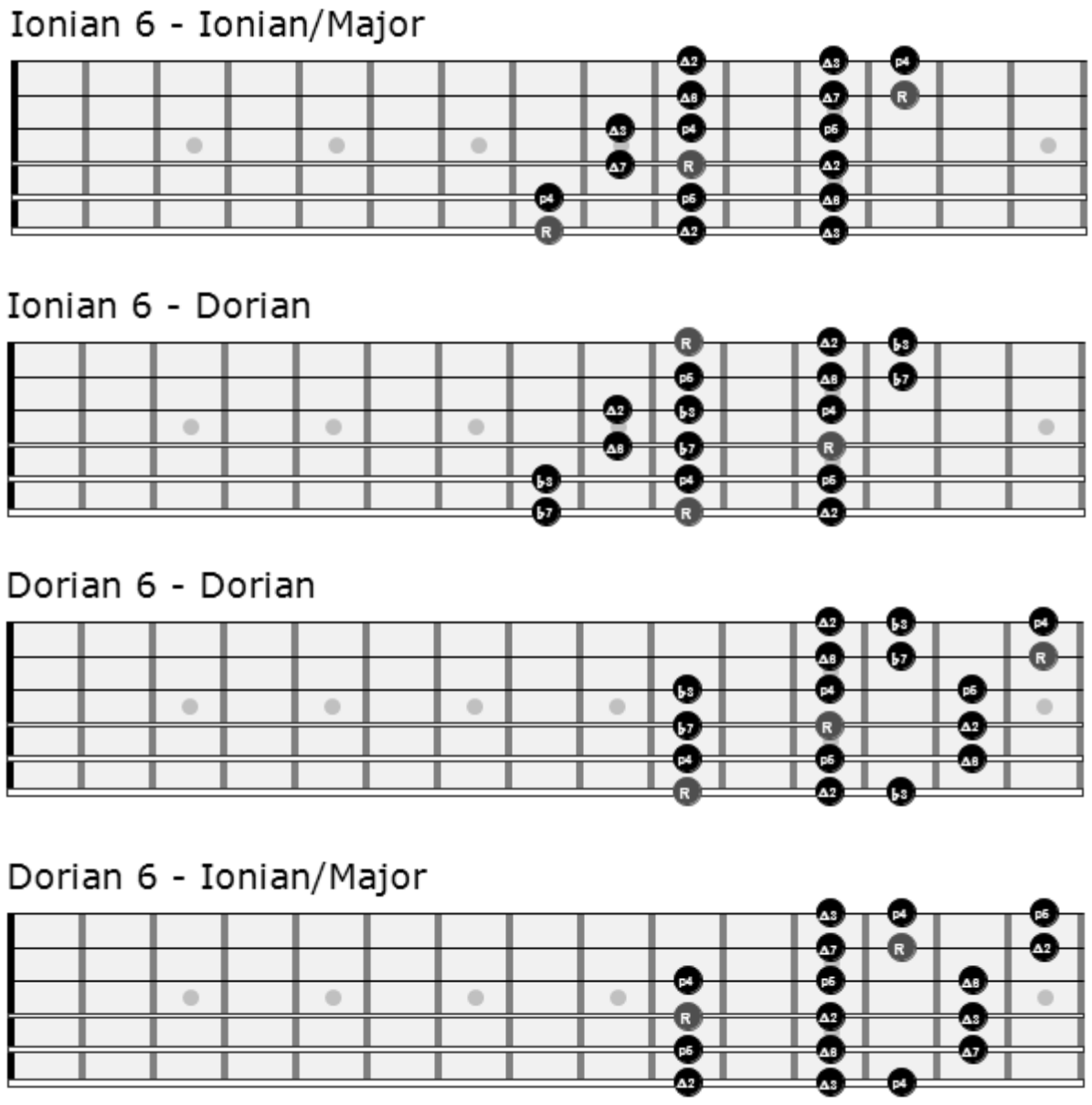
Therefore, this course is designed to teach the guitar through a series of scale, chord, and arpeggio patterns presented in such a way as to illuminate their structures across the fretboard and their relationships with one another. In this way, over the course of a few months, students can assimilate information that is otherwise accumulated haphazardly over years of study, if ever learned at all. Learning

this material consumes all guitar study for this course, resulting in no emphasis being placed on performance technique or on reading and performing guitar literature. Only essential aspects of guitar technique and reading are taught in so much as is required to perform class materials. In mastering this material students develop favored patterns of scale, chord, and arpeggio performance that free their minds for other tasks such as reading, memorizing, and improvising.

The diatonic scales are presented in "three notes per string" patterns favored by improvisers of the instrument. The rule of "three notes per string" provides a consistency that is essential in mentally combatting the asymmetrical tuning of the instrument. There is a cyclical pattern that arises with scales when the notes are divided in this manner resulting in seven different groupings, one for each scale degree. This creates three groups comprised of two whole-steps, two groups comprised of one half-step followed by one whole-step, and two groups comprised of one whole-step followed by one half-step. When each pattern is begun on string six and performed across the neck, seven distinct patterns arise. These can be named according to the mode they create when beginning upon each scale degree as follows: "Ionian 6," "Dorian 6," "Phrygian 6," "Lydian 6," "Mixolydian 6," "Aeolian 6," and "Locrian 6." Many guitarists prefer to conceptualize keys in terms of these seven patterns.

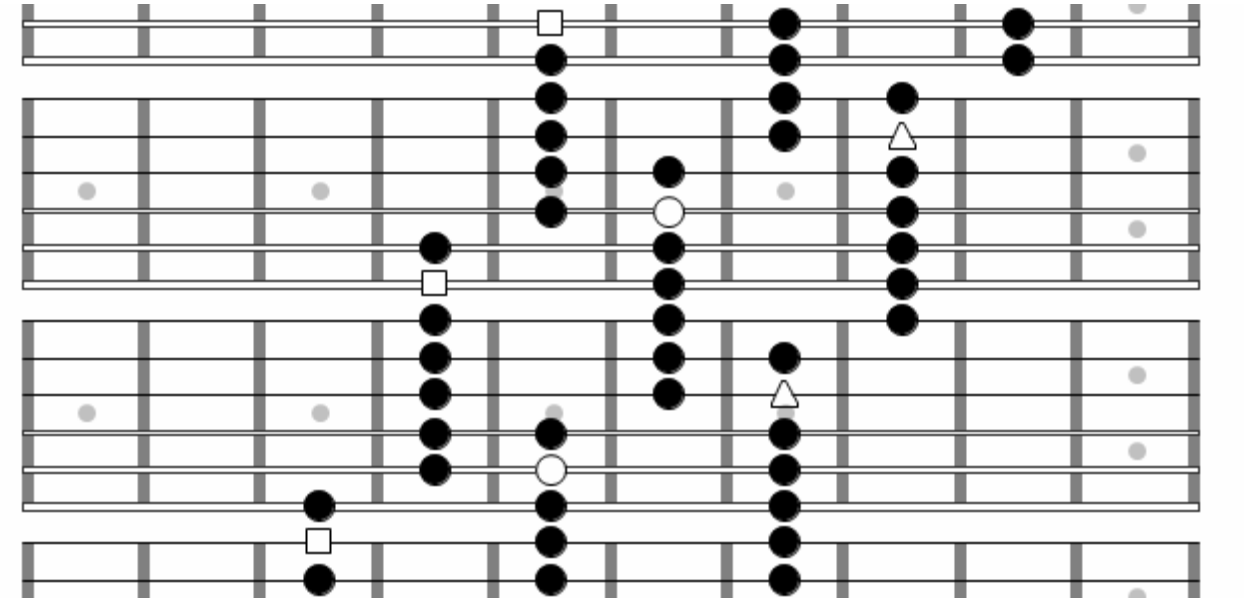
Although this method is effective for understanding the instrument, it is incredibly cumbersome. The chart "Ionian 6 – Ionian/Major" is the first shape of this set a student needs to learn. Notice how the lowest note in this chart is the root of the shape, and thus the shape is named. The second scale degree is the second lowest note in the shape, hence the following "Ionian 6 – Dorian" chart. This chart shows how one would perform the Dorian scale within the Ionian 6 scale shape. If, however, one were to place finger 1 on the root of the Dorian scale, thereby making it the lowest note on string 6, then the shape "Dorian 6 – Dorian" would result. One can perform the Ionian scale within this shape by reconceptualizing the root as the lowest note on string 4. This same two shape/two scale combinatorial relationship exists between each of the seven modes, thus resulting in a dizzying array of patterns and relationships to assimilate.

Figure 7: Scale Shape Comparisons



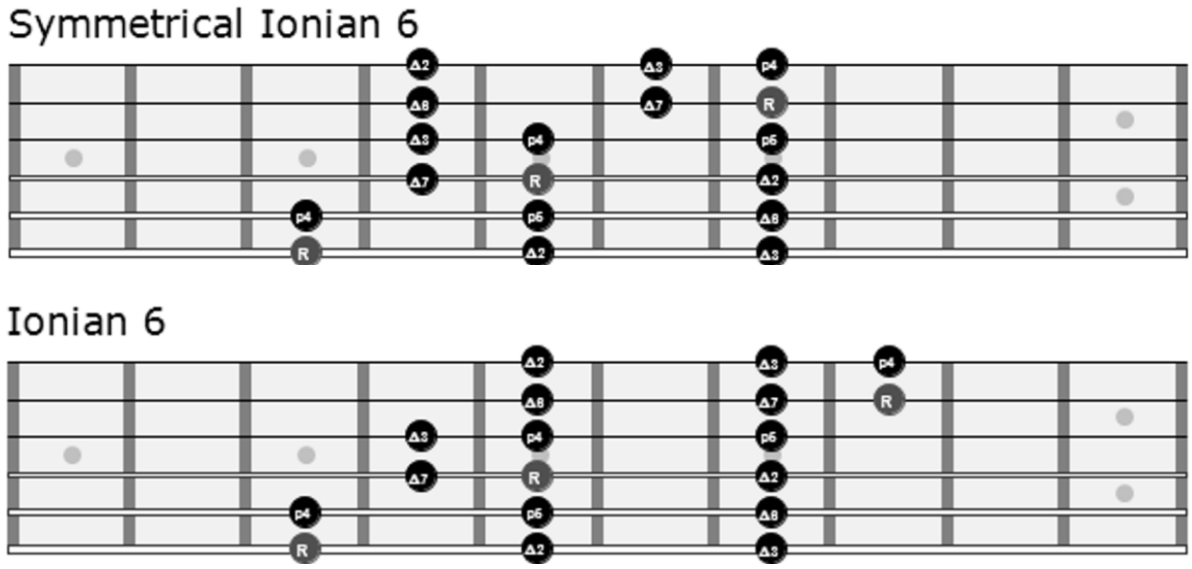
On the surface, each of the seven parent scale shapes appears to be unique. Yet this is not entirely true, for within each of these patterns can be found an underlying pattern. The guitar handout "Diatonic Scale Cycle: Conceptual" presents this underlying cyclical, seven string pattern. What it demonstrates is that, given a fretboard that is both sufficiently wide and symmetrically tuned in fourths, one could theoretically perform the same scale across the neck ad infinitum without alteration.

Figure 8: Diatonic Scale Cycle: Conceptual



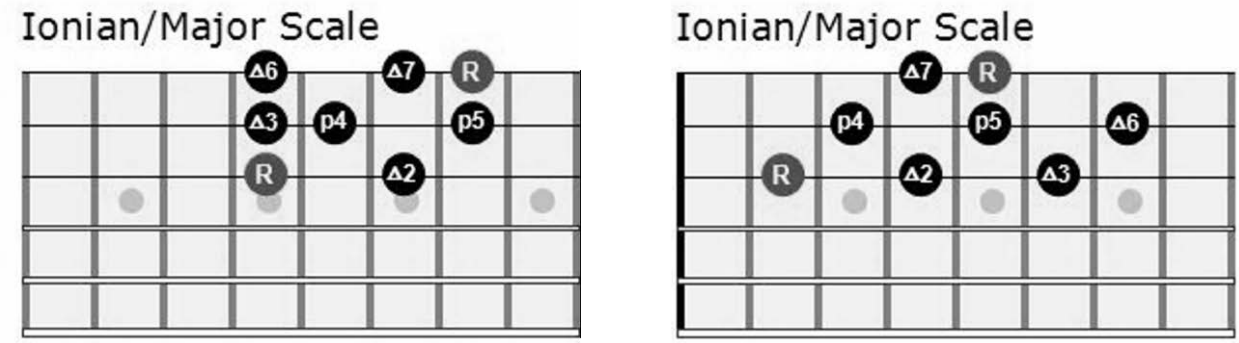
Mastering this conceptual pattern allows a guitarist to overlay the pattern on the neck of the guitar while compensating for the tuning asymmetry. The guitar handout "Diatonic Scale Cycle: Symmetrical 4ths Tuning" demonstrates how each of the seven scale shapes would lay out were the guitar tuned symmetrically. The practical application of the pattern is presented in the teaching handout "Diatonic Scale Cycle: Actual."

Figure 9: Conceptual Versus Actual Scales



A guitarist will eventually need to master the location of each scale degree within this pattern in addition to learning the pattern itself, but one needs only to keep in mind the location of the first scale degree for whichever mode one is practicing when beginning this type of practice. Once mastered this system is very powerful, although new students may find it initially overwhelming. Beginners may therefore be better served by starting off their scale studies with one-octave scales. These are found in guitar handouts such as "Diatonic Scales – String 1: Descending" and "Diatonic Scales – String 3: Ascending."

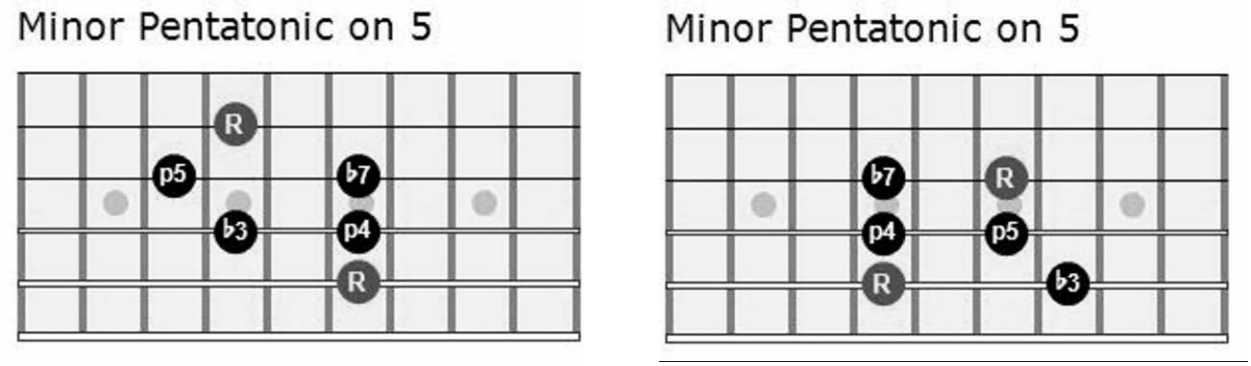
Figure 10: Descending and Ascending Three String Major Scales



The descending, one-octave scale patterns are labeled by the string upon which their highest note is performed, while the ascending patterns are labeled by the string upon which their lowest note is performed. The descending, one-octave scale patterns have only two notes on their lowest string as the second scale degree will be played twice when the scale is performed down and then up. The reverse holds true for the ascending, one-octave scale patterns with the seventh scale degree being performed twice. Two-octave scales can be created through the combination of one ascending and one descending pattern. Once a student gains familiarity with two-octave scales the diatonic scale cycle will begin to emerge naturally in their mind.

The major and minor pentatonic scales are organized into two sets each. The first set of pentatonic scales is built around CAGED chord shapes based on stacked thirds above the bass. The triadic version of each scale begins on finger 3 or 4 and can be performed directly out of one of these chord shapes, which include the G, C, E, and A chord shapes. The second set is built around chord shapes based on power chords. This version of each scale begins on either finger 1 or 2 and can be played over a shape with a power chord in its bass. These include the E, A, D, and G chord shapes.

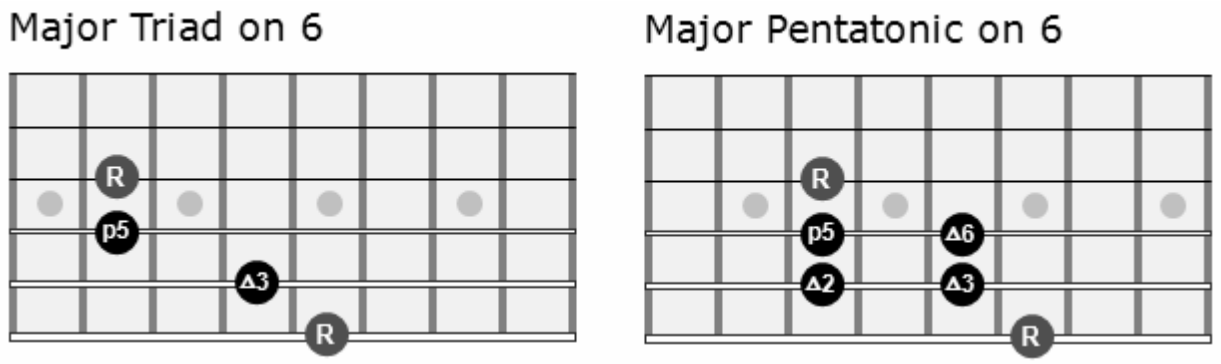
Figure 11: Minor Pentatonic Scale Shapes: Triadic and Pentatonic



The major and minor triad arpeggios are presented in exactly the same fashion as the pentatonic scales. In fact, these triads can be viewed as three-note versions of their respective pentatonic scales as each of the notes in these triads belongs to these scales. Therefore, it is highly recommended that students

practice their major and minor triad arpeggios in conjunction with their pentatonic scales. Compare the fretboard handouts "Major and Minor Arpeggios: Triadic" with "Major and Minor Pentatonics: Triadic" as well as "Major and Minor Arpeggios: Power Chord" with "Major and Minor Pentatonics: Power Chord."

Figure 12: Triads and Pentatonics

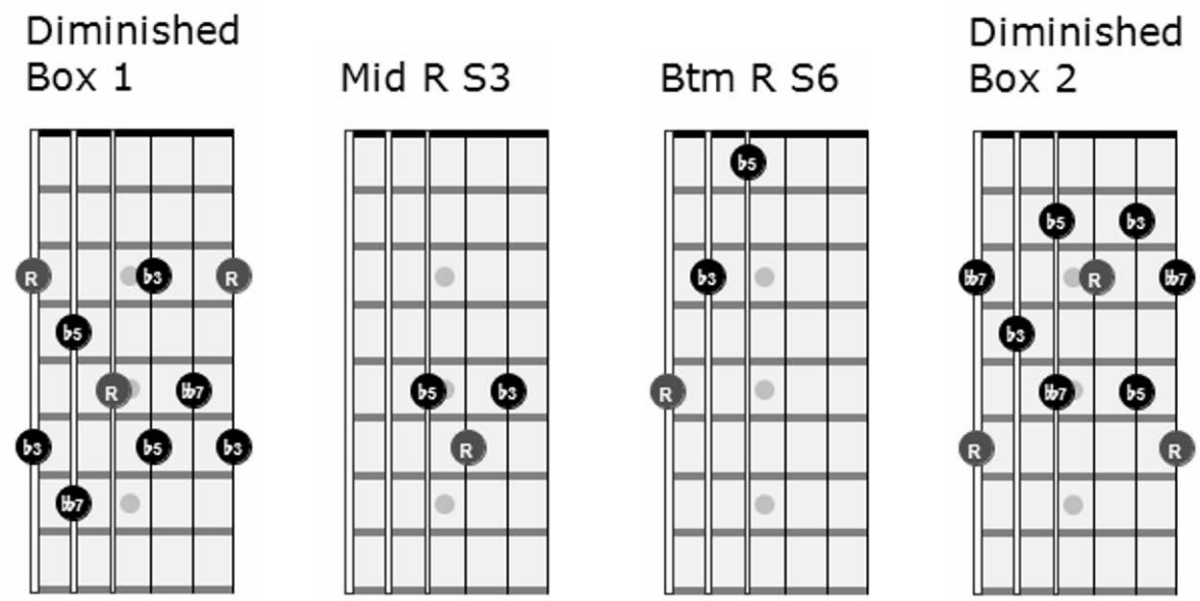


The chromatic and whole-tone scales, as symmetrical scales, are incredibly straight forward to learn on the guitar. Students can play either of these scales through one octave with little to no difficulty. For this reason they are included in the first week of class. Learning to play two- or three-octave versions of each scale requires some experience however. The most efficient patterns and fingerings are notated for students' benefit, although it is not required that they put significant effort into learning these during the course.

Diminished triads are presented in three sets of three-string combinations. The first set includes root position diminished triads, the second set is comprised of second inversion triads, and the third set is comprised of first inversion triads. Students are likely to imagine these as the bottom-root set, the middle-root set, and the top-root set. Once again, the asymmetry of the guitar distorts these symmetrical patterns to look like many unique patterns when in fact they are not. Learning the triads in this way results in one memorizing the symmetrical pattern and modifying it based on the strings upon which one is performing. "Diminished Box 1" and "Diminished Box 2" included on the guitar handout "Diminished Triads"

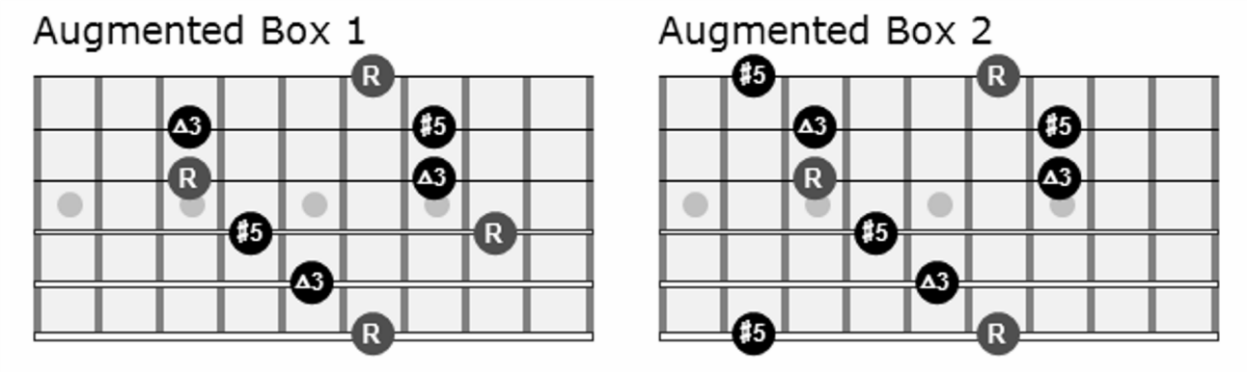
demonstrate the symmetry of the diminished seventh chord through comparison. They can also be used to show how any note in a diminished seventh chord can be considered a root by mentally overlapping the triad shapes on these boxes. In addition, students can use these boxes to work out their own diminished seventh chord formations.

Figure 13: Diminished Chord Formations



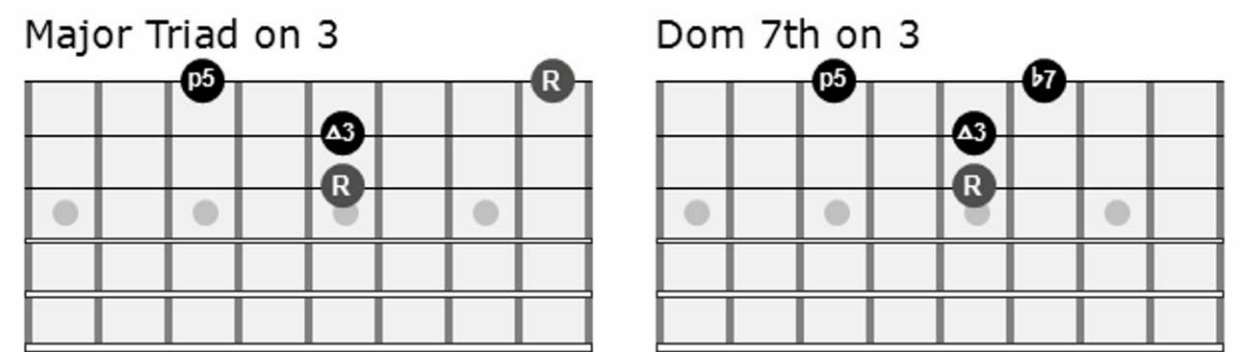
The guitar handout "Augmented Triads" includes an "Augmented Box 1" and an "Augmented Box 2" at the top of the page. These demonstrate the symmetry of the augmented triad by showing the only two possible patterns of notes across the neck. In actuality, one can choose to look at the augmented triad on the guitar as though there is only one diagonal pattern spanning all six strings that overlaps itself over and over again throughout the entirety of the neck. The two boxes selected here also show how any note in these patterns can function as the root. The selection of chords that follow represent the most reasonable four-adjacent-string augmented chord shapes.

Figure 14: Augmented Triad Patterns



The remaining standard chords are taught using the CAGED method only in so much as is necessary for the performance of class materials as mastering chordal accompaniment is not the focus of this course. To expedite the chord skills of new guitar students, the arpeggio guitar handouts double as examples of simple chord shapes. In order to make use of these sheets, all a student must do is omit one of the notes from a string whose arpeggio requires the performance of two notes. This practice results in a more fundamental understanding of chord construction on the guitar that serves all students in better understanding the CAGED shapes, in augmenting their abilities to construct their own chords, and in developing the ability to improvise chord structures on the fly.

Figure: 15: Major Triad / Dominant 7th Comparison



All guitar diagrams were created using the computer software *Neck Diagrams*.[22]

Singing

Singing is integral in developing musicianship. It is the most effective means of developing the ear and, along with taking dictation, is one of the two most certain ways of testing aural skills. This course arms students with numerous methods of singing to aid in ear development, which can all be found in the teaching handouts "Interval Singing," "Practicing Riffs," and "Working with Burge." The goal of this course is not to turn students into singers nor make them sight-singers, but it is designed to make students capable of singing the written page and auralizing music.

Students begin the course learning how to utilize Sound Rounds and Grand Rounds in order to train intervals. It is imperative that in this first week the instructor makes clear to the students that daily singing practice is vital to their success in the course. Although there will regularly be singing in class, it is insufficient for developing the ear at a fast enough pace. Singing in class is meant to demonstrate how to practice and what a musician must strive to be able to accomplish. Although it is a supplement to independent training, it is not a substitute.

Scales are also introduced in the first week in the form of the chromatic and whole-tone scales. These two scales are practiced in a straightforward manner and are used primarily to develop familiarity with major and minor seconds. With the addition of the G major scale in the second week students learn how to build up to singing a complete scale with the additive scale process. These scales are performed by beginning with the first two notes of a scale, singing them up and down, and then adding the third note. This process continues until the entire scale is sung. Descending scales work in the same manner but opposite direction.[23] In week three students learn how to solidify their ability to sing a scale with the extended scale pattern. These scales ascend a 2nd above the top of the scale and descend to a 4th below the

[22] Idealabs. *Neck Diagrams Pro 1.11.2*. Richmond, Surrey, UK: Digital Software Technology Ltd., 2009, retrieved from www.neckdiagrams.com.
[23] Krueger, Carol J, *Progressive Sight Singing*, 2nd ed., (New York: Oxford University Press, 2011), 181.

bottom of the scale before returning to tonic.[24] Scale thirds are introduced in week three as well as a means of simultaneously developing scale and interval familiarity.

Students sing their first song in week three to the tune of "Listen Here" from *The Real Easy Book*.[25] In week five students begin learning songs that also include written basslines available for practice. These provide a solid means of practicing scales and arpeggios within a musical context that will aid in students' aural understanding of inversions as well as their basic ability to hear bass notes.

In week five students should also begin singing through the circle of fifths and scale fifths if they have not yet done so. Although these patterns will have been in use since week two with the introduction of riffs, singing these patterns in isolation may prove to have been too difficult at that time. By week five students will be covering power chords, fourths, and fifths, which will provide the ideal opportunity to learn how to sing these patterns. In week seven students will begin learning how to utilize these patterns outside of the given riffs in order to practice any pattern they can imagine, such as triad arpeggios.

In week thirteen students are taught pentachord scales in order to further develop their ears for modes and scale degrees. The chord progression to the head of "Autumn Leaves" spans a complete set of minor scale fifths, and therefore includes all seven of the diatonic modes. In week fourteen students will add cycle modes to their repertoire as well, where one sings each modal scale through the cycle. Students can actually practice this with a backing track for "Autumn Leaves" to aid them in developing this skill. In essence, students will be developing aural skills while soloing to "Autumn Leaves!"

Songs

Classical music does not lend itself well to the teaching style of this course, nor does it attract the attention of most American college students. Therefore, popular forms of music have been used instead. Sections of a wide variety of popular songs have been transcribed for use in training the ears and hands to assimilate the diatonic modes. Each song was selected on the basis of its playability and modal character. A diligent attempt was made at finding pieces where the example material was played by a guitar or

[24] Krueger, Carol J, *Progressive Sight Singing*, 2nd ed., (New York: Oxford University Press, 2011), 181.
[25] Stanford Jazz Workshop, *The Real Easy Book: Tunes for Beginning Improvisers*, Edited by Michael Zisman, (Petaluma, CA: Sher Music Co., 2005).

another instrument as opposed to transcribing vocal melodies. In some cases, melodies are comprised of power chords or intervallic material, as this style of composition is common practice in guitar music – especially that of hard rock and heavy metal. Each song example includes a description of the material and cites where in the song the material resides. These songs will stimulate students' interest in exploring modes and learning new songs while simultaneously training their ears, minds, and hands.

Nine jazz pieces have been selected for more dedicated study over the course of the semester. Rather than attempting to determine which style of music is most popular among the students of a particular classroom, it is best to hit the roots of popular music. Jazz is best suited for this role as it is, in a way, classical popular music. This music spans all genres of popular music, is taught at the university level as its own discipline, and, most importantly, lives and breathes musicianship.

The Real Easy Book: Tunes for Beginning Improvisers by the Stanford Jazz Workshop has been chosen as the main source of song material in this course as the simple, repetitive, and riff –based natures of the tunes lend themselves readily to the goals of this course.[26] Many of the pieces are blues or blues based and have simple chord progressions, thusly creating another strong parallel with the methods of this course. These pieces are each accompanied by additional material such as basic piano voicings, useful scales, sample basslines or piano accompaniment, and guitar voicings. Although only the sample basslines will be utilized in this course, students may still find the remaining information personally useful. The nine selected pieces are listed below each with an explanation of their educational purpose.

- "Listen Here"
    - The tune "Listen Here" is comprised of two chords, B♭7 and E♭7, and two melodic fragments used exclusively over each chord.[27] It is selected as the first song for students to learn because it is in a major key, it utilizes only the I and IV chords, and the tune is comprised of a small collection of repeated intervals comprising two readily distinguishable smaller riffs.

[26] Stanford Jazz Workshop, *The Real Easy Book: Tunes for Beginning Improvisers*, Edited by Michael Zisman, (Petaluma, CA: Sher Music Co., 2005).
[27] Stanford Jazz Workshop, *The Real Easy Book: Tunes for Beginning Improvisers*, Edited by Michael Zisman, (Petaluma, CA: Sher Music Co., 2005), 35-36.

Although the key of B♭ is not covered until the second half of the semester, it is a small matter to either demonstrate to students how to move the shapes required to perform this piece to the necessary position to play in B♭ or how to play the piece in the key of C instead.

- "Blues by Five"
  - "Blues by Five" is the first standard blues the class is to learn.[28] Its only variation is the basic V7 substitution in bar 12. This piece is also in B♭, but is just as easily transposable as is "Listen Here." This work offers students a longer melody comprised of repeated motivic material that is transposed up by a fourth on the IV and V chords, with the material being modified on V to end the melody. This piece demonstrates to students the effectiveness of transposing the same material in such a simple manner.
- "Sonnymoon for Two"
  - The major and minor pentatonic scales are introduced in week six with "Sonnymoon for Two."[29] The melody of this pieces is exclusively comprised of the B♭ minor pentatonic scale. It builds upon the lick pentatonic lick fragments that comprise "Listen Here" and "Blues by Five" from weeks three and five. Those works are ideal for demonstrating how the riffs being introduced can be mined for melodic material sufficient to write entire songs. "Sonnymoon for Two" expands upon this idea in its using of an entire descending minor pentatonic scale as its opening material on B♭ and then repeats exactly the same scale over E♭7, the IV of B♭, and F7, the V of B♭.
- "Blues in the Closet"
  - "Blues in the Closet" is the first piece the class will perform with a minor chord, and it coincides with the introduction of the natural minor scale. It has, once again, a strongly riff

[28] Stanford Jazz Workshop, *The Real Easy Book: Tunes for Beginning Improvisers*, Edited by Michael Zisman, (Petaluma, CA: Sher Music Co., 2005), 7-8.
[29] Stanford Jazz Workshop, *The Real Easy Book: Tunes for Beginning Improvisers*, Edited by Michael Zisman, (Petaluma, CA: Sher Music Co., 2005), 65-66.

based and repetitive melody to drive home riff learning and usage.[30] It makes brilliant use of the major/minor third ambiguity of blues in its repetition of the same riff in bars 6-7 but with the single alteration of the A to A♭. This parallels the riff-work's emphasis on practicing all patterns with each interval combination and transitions students' ears to the essential difference between major and minor.

- "Revelation"
    - "Revelation" is a minor blues in D minor. It marks the first minor blues of the class and the first piece in a key with which the class is familiar.[31] "Revelation" is comprised of a simple riff that is transposed over the various harmonies, although the chord tones the riff represents for each transposition do not match those of the tonic iteration. Recontextualizing material in this will be an ear and mind expanding experience for students.
- "Mr. PC"
    - "Mr. PC" is the second minor blues covered in class. It shares the same, basic harmonic structure as "Revelation," but is in the key of C minor.[32] At this point in the class any key is playable, although C minor is still not one of the instrument's preferred keys. The melodic material in this work is arranged in much the same manner as that of "Blues by Five," but it is more scalar and complex in nature. The ascending portion of the initial melody on Cm7 and Fm7 utilizes the natural minor scale, while the descending material follows the minor pentatonic scale. This juxtaposition will serve as a powerful learning tool.
- "Tenor Madness"

[30] Stanford Jazz Workshop, *The Real Easy Book: Tunes for Beginning Improvisers*, Edited by Michael Zisman, (Petaluma, CA: Sher Music Co., 2005), 9-10.
[31] Stanford Jazz Workshop, *The Real Easy Book: Tunes for Beginning Improvisers*, Edited by Michael Zisman, (Petaluma, CA: Sher Music Co., 2005), 49-50.
[32] Stanford Jazz Workshop, *The Real Easy Book: Tunes for Beginning Improvisers*, Edited by Michael Zisman, (Petaluma, CA: Sher Music Co., 2005), 43-44.

- "Tenor Madness" is the fastest, most demanding, and possibly most fun tune of the semester.[33] It is rhythmically complex although comprised of simple motives, juxtaposes use of the major and minor third between iterances of the motive, and includes a complete CmM7 descending arpeggio over a Cm7 harmony. Most students are unlikely to be able to perform it at tempo or even its entirety, especially with regards to the CmM7 arpeggio, but it offers students something to strive for. It is the final piece selected for use in this course from *The Real Easy Book*.

- "Tune Up"
  - "Tune Up" is the first non-blues piece since "Listen Here," although this work is far more complex both melodically and harmonically. It has been included as an example of ii7 – V7 – I M7 progressions, as they are commonly expressed in jazz literature, with I M7 being modified to become the ii7 of the next progression. The melody is the most complex of the semester, although it is not quite as difficult to master as the tune to "Tenor Madness." The opening line of the first ii – V – I is repeated for the second ii – V – I, giving students just enough time to catch hold of the tune before being brought elsewhere with the third rendition of ii – V – I. Most notable about this melody is the inclusion of the ♯1 chord tone in the first two lines, D♯ over DM7 and C♯ over CM7. The practicing of riffs with this piece will put students to the test, as they will not have experienced this multitude of harmonies nor this rate of harmonic rhythm until this point. It is for this reason that such pieces have been reserved until end of the semester.

- "Autumn Leaves"
  - "Autumn Leaves" is the capstone tune of the semester. In addition to it being one of the biggest staples of the repertoire the melody is long, beautiful, and simple. What is most significant regarding the relationship of this work to the course is its harmonic progression.

[33] Stanford Jazz Workshop, *The Real Easy Book: Tunes for Beginning Improvisers*, Edited by Michael Zisman, (Petaluma, CA: Sher Music Co., 2005), 73-74.

The riff-work students engage in throughout the semester is practiced through either the circle of fifths or scale fifths, with the goal always being to master the material via performance through scale fifths. The harmonic framework of "Autumn Leaves" is E minor scale fifths, which also happens to be an ideal key on the guitar. The harmonic progression of the head is iv7 – ♭VII7 – ♭III M7 – ♭VI M7 – ii^{Ø} – V7 – I M7. There is only one altered harmony in the progression, and that is the obligatory V7 of I. This modification to the cycle will be a good learning experience for the students in their assimilation of the minor mode and will lead well into future studies with the harmonic and melodic minor scales. The V7 harmony also provides an ideal opportunity for ambitious students to make use of the harmonic minor mode, Phrygian #3, if they so choose. In addition, on paper it also becomes easy to see the ii – V – I (Am7 – D7 – GM7) and ii° – V – i (F#^{Ø} – B7– Em7) progressions imbedded within this larger progression.

- As "Tune Up" contained only ii-V-I progressions, it is good to follow with a piece centered around ii°-V-I to complete the semester.

Worksheets

When assigning these worksheets the instructor should be sure to point out to students that these kind of activities are designed to get them thinking like musicians. Although it is a simple matter to copy answers from another source in order to complete these worksheets, anyone interested in developing musicianship cannot act in such an intellectually lazy manner. Students are free to check their work but should not do so until they have utilized the techniques discussed in class and are certain every answer is correct. If in checking one's work a wrong answer is found, it is best to revisit the problem and rectify the mental process that led to the mistake.

- Worksheet 1: Solfege Practice

- This worksheet is designed to be immediately accessible to students during the first week of the course. It requires students to develop familiarity with reading treble and bass clefs, key signatures, and accidentals in order to label notes by their letter name and fixed Do solfege.

- Worksheet 2: Scale Degrees
  - This worksheet is as accessible as Worksheet 1: Solfege Practice is. It requires students to develop familiarity with reading treble and bass clefs in so much as is necessary to develop the ability to recognize scale degrees.
- Worksheet 3: Triad Structures
  - This worksheet provides students with the opportunity to familiarize themselves further with the structure of all four triad types by requiring them to construct three given chords of each type. They must write note names, label chord tones, and calculate the number of steps between pitches.
- Worksheet 4: Major Key Triads
  - This worksheet is designed to aid students in understanding the connections between major keys, scale degrees, and chords while providing the opportunity to strengthen their knowledge of major, minor, and diminished triad structures. Students must write the notes, scale degrees, and steps between notes of a major scale and then create the chords belonging to this key. In addition they must write the chord degrees, note names, chord tones, and number of steps between pitches.
- Worksheet 5: Blues Progressions
  - This worksheet trains students to memorize the structure of major and minor blues.
- Worksheet 6: Major Key Signatures
  - This worksheet requires students to identify all possible major keys.
- Worksheet 7: Minor Key Triads

- This worksheet is designed to aid students in understanding the connections between minor keys, scale degrees, and chords while providing the opportunity to strengthen their knowledge of major, minor, augmented, and diminished triad structures.

- Worksheet 8: Transposing Progressions
  - This worksheet requires students to identify the chord degrees of ten given progressions and to transpose those progressions into four other keys. Students will begin to think in terms of disparate and unfamiliar keys as well as become more familiar with chord degree qualities.
- Worksheet 9: Minor Key Signatures
  - This worksheet gets students thinking in terms of minor key signatures in the same way as Worksheet 5: Blues Progressions does for major key signatures. It simply requires the identification of all fifteen minor key signatures.
- Worksheet 10: Major Key 7^{th} Chords
  - This worksheet is designed in the same fashion as Worksheet 4: Major Key Triads with the exception that students are required to extend each chord to a seventh.
- Worksheet 11: Minor Key 7^{th} Chords
  - This worksheet is designed in the same fashion as Worksheet 7: Minor Key Triads with the exception that students are required to extend each chord to a seventh.
- Worksheet 12: 7 Diatonic Modes – Guitar
  - This worksheet is the only assignment requiring students to provide a written demonstration of their fretboard knowledge. Students must create two, one-octave scale patterns for each of the seven diatonic modes.

<u>Exams</u>

- Exam 1 - Written
  - The written exam is comprised of exercises similar to the assignments. These require the students prove mastery of the material covered over the course of the first half of the semester

by completing these same exercises within a limited period of time and without outside sources.

- Exam 1 - Home
    - The home exam provides students with the opportunity to demonstrate what progress they have made in musicianship over the first half of the semester. They are to record themselves performing and upload the videos for the instructor to grade.
    - Students must play a blues progression accompaniment in order to demonstrate authority over blues structure. This task provides all students with a fun and relatively simple requirement that should effectively warm them up to performing the more demanding solos.
    - Students must perform a solo over a blues track with the guitar. This task provides students with the opportunity to show off to the instructor their best stuff. It is perfectly acceptable for them to compose and rehearse their solos. This task requires that students have developed strong guitar technique, fretboard knowledge, and command of the riffs studied in class. Students must turn in a written version of the solo, which will be used as the standard by which to gauge the accuracy of the performance.
    - Students must sing a solo over a blues track. This task requires students to have developed a command of both their voice and ability to auralize. Students may sing words, scale degrees, solfege, or anything else they like. The goal is to demonstrate internal musicianship. Students must turn in a written version of the solo, which will be used as the standard by which to gauge the accuracy of the performance. This solo must be different than the guitar solo.
    - Students must perform all ascending and descending A major scale shapes on the guitar in order to demonstrate sufficient command of all major scales on the guitar necessary for learning the remaining six modes during the second half of the semester. A major is selected as the key for this performance as it is the most widely used key in guitar literature.

- Students must sing complete ascending and descending pentachord scales in order to demonstrate a strong command of the diatonic mode. In developing this ability students are culturing their ear to understand all seven diatonic modes.

- Exam 2 - Written
  - The written exam is comprised of exercises similar to the assignments. These require the students prove mastery of the material covered over the course of the semester by completing these same exercises within a limited period of time and without outside sources.
- Exam 2 - Home
  - The home exam provides students with the opportunity to demonstrate what progress they have made in musicianship over the first half of the semester. They are to record themselves performing and upload the videos for the instructor to grade.
  - Students must perform a solo with the guitar over a song selected from the second half of the semester. This task provides students with the opportunity to show off to the instructor their best stuff. Students are allowed to choose any track from the second half of class to perform. It is perfectly acceptable for them to compose and rehearse their solos. This task requires that students have developed strong guitar technique, fretboard knowledge, and command of the riffs studied in class. Students must turn in a written version of the solo, which will be used as the standard by which to gauge the performance.
  - Students must sing a solo over a song selected from the second half of the semester. This task requires students to have developed a command of both their voice and ability to auralize. Students are allowed to choose any track from the second half of class to perform and may sing words, scale degrees, solfege, or anything else they like. The goal is to demonstrate internal musicianship. Students must turn in a written version of the solo, which will be used as the standard by which to gauge the performance. This solo must be different than the guitar solo.

- Students must perform all seven diatonic modes through the cycle using ascending and descending patterns in order to demonstrate control of the seven modes on the guitar.
- Students must sing all seven diatonic modes through the cycle with one octave ascending and descending patterns in order to demonstrate aural ability with the seven modes.
- Students must sing the patterns "root – third – fifth – third – root" and "root – fifth – third – fifth – root" through the cycle in any key(s) to demonstrate aural control of diatonic chord degrees.

Supplemental Teaching Materials

Burge, David Lucas. *The Relative Pitch Ear Training Supercourse*. CDs. Fairfield, IA: American Educational Music Publications, Inc., 2001.

Stanford Jazz Workshop. *The Real Easy Book: Tunes for Beginning Improvisers*. Edited by Michael Zisman. Petaluma, CA: Sher Music Co., 2005.

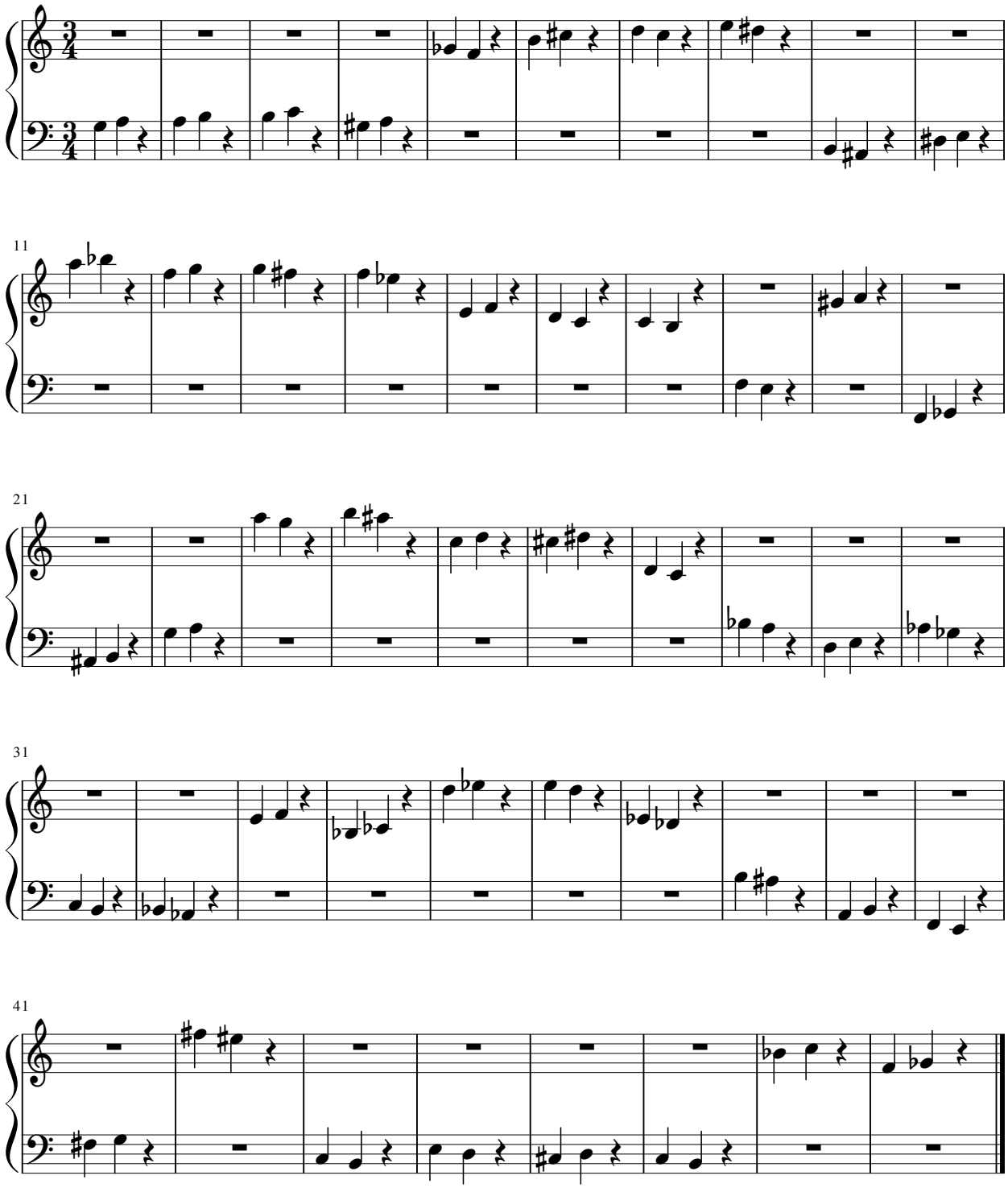
Ear training software such as *Auralia* or *EarMaster*.

Appendix A: TEACHING MATERIALS

Lightning Round

2nds

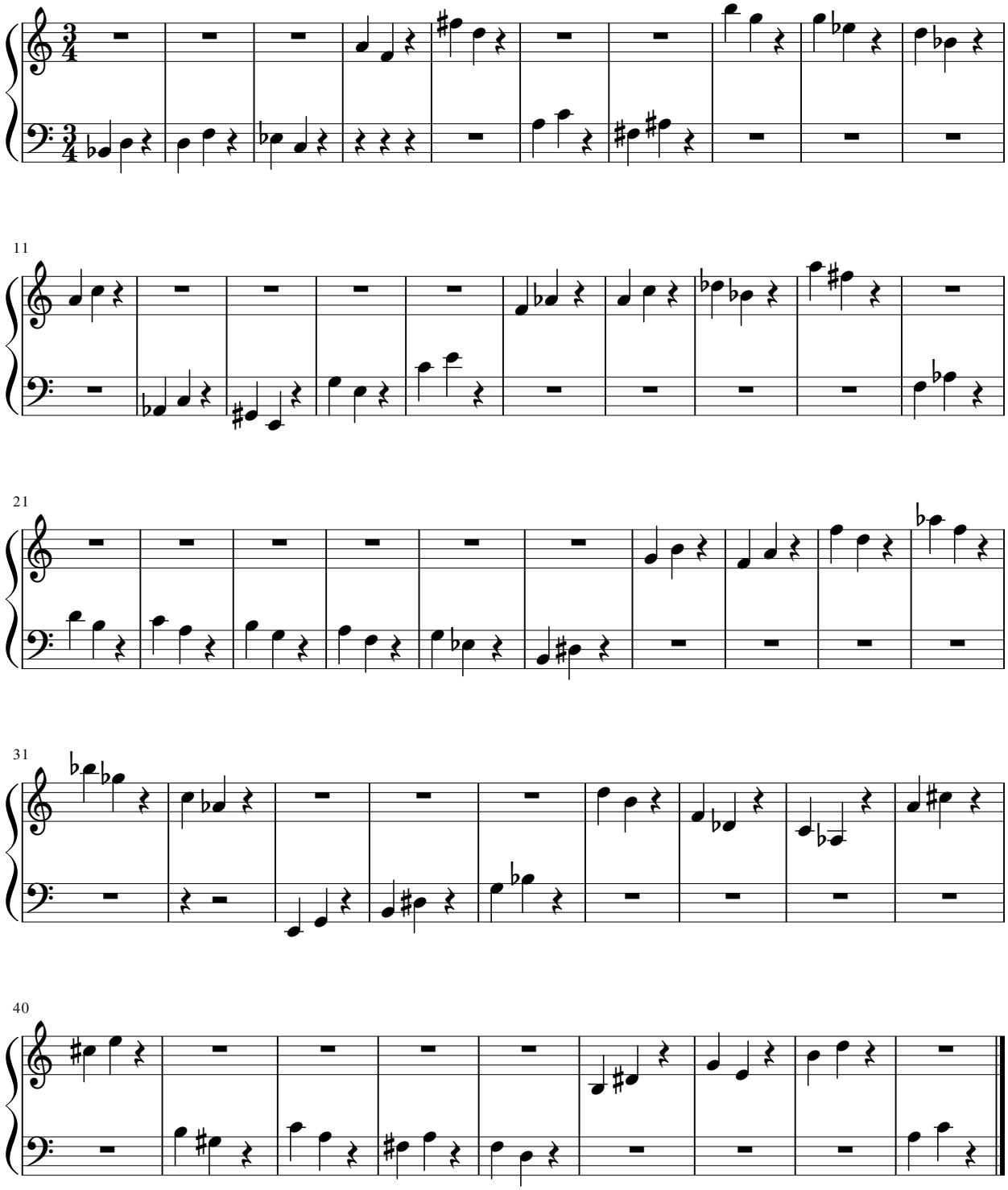
Nebelung



Lightning Round

3rds

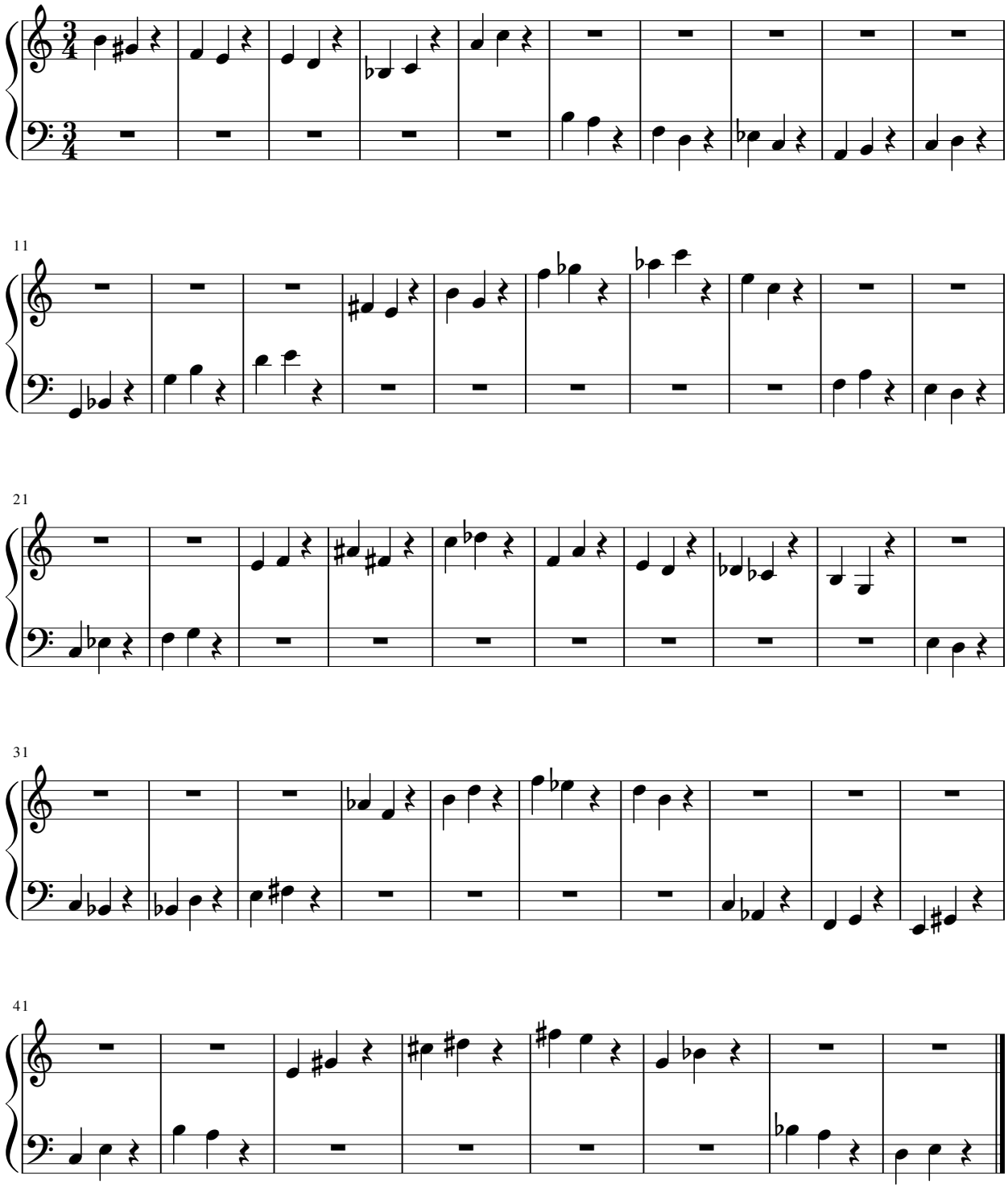
Nebelung



Lightning Round

2nds-3rds

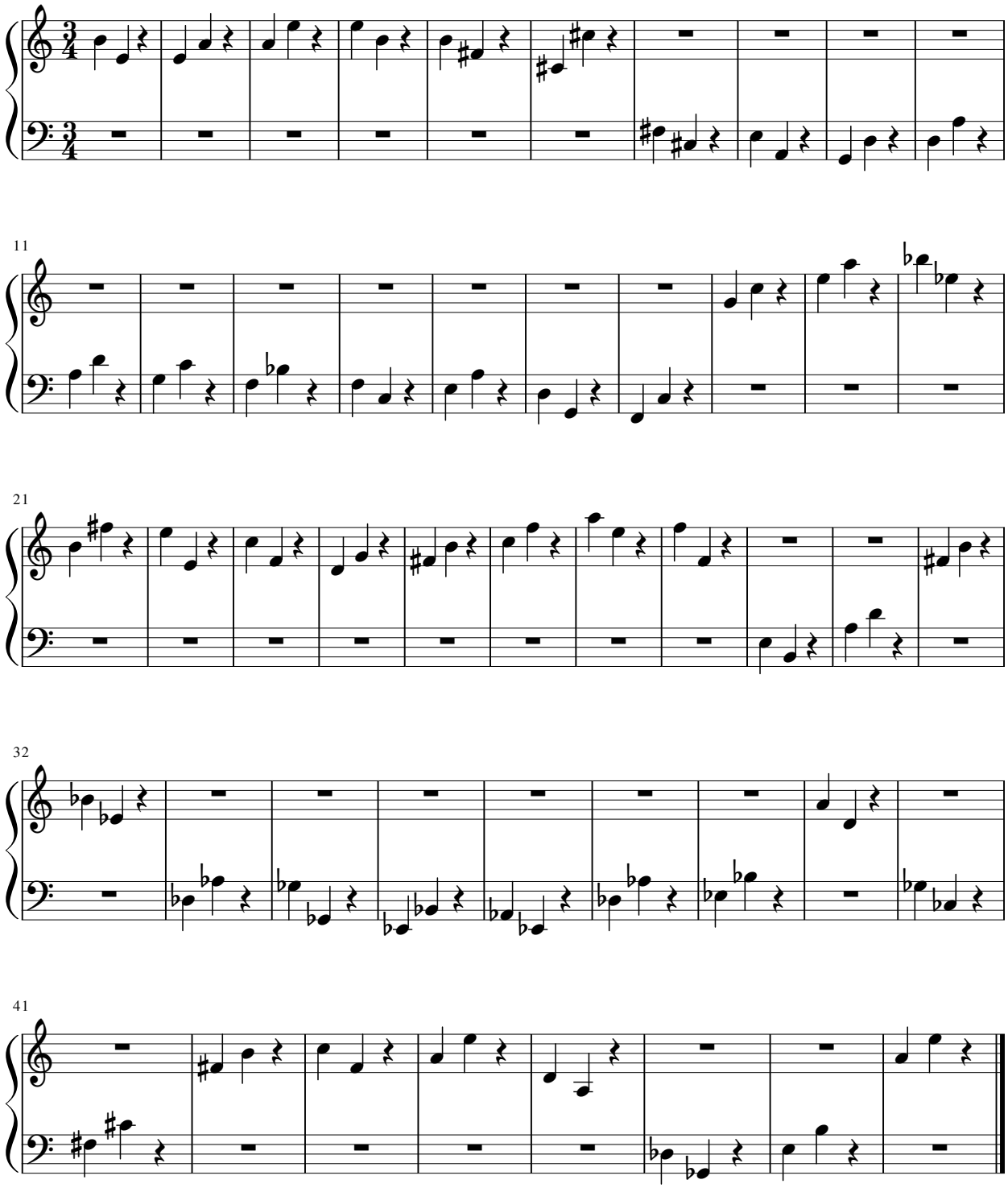
Nebelung



Lightning Round

4ths, 5ths, 8ves

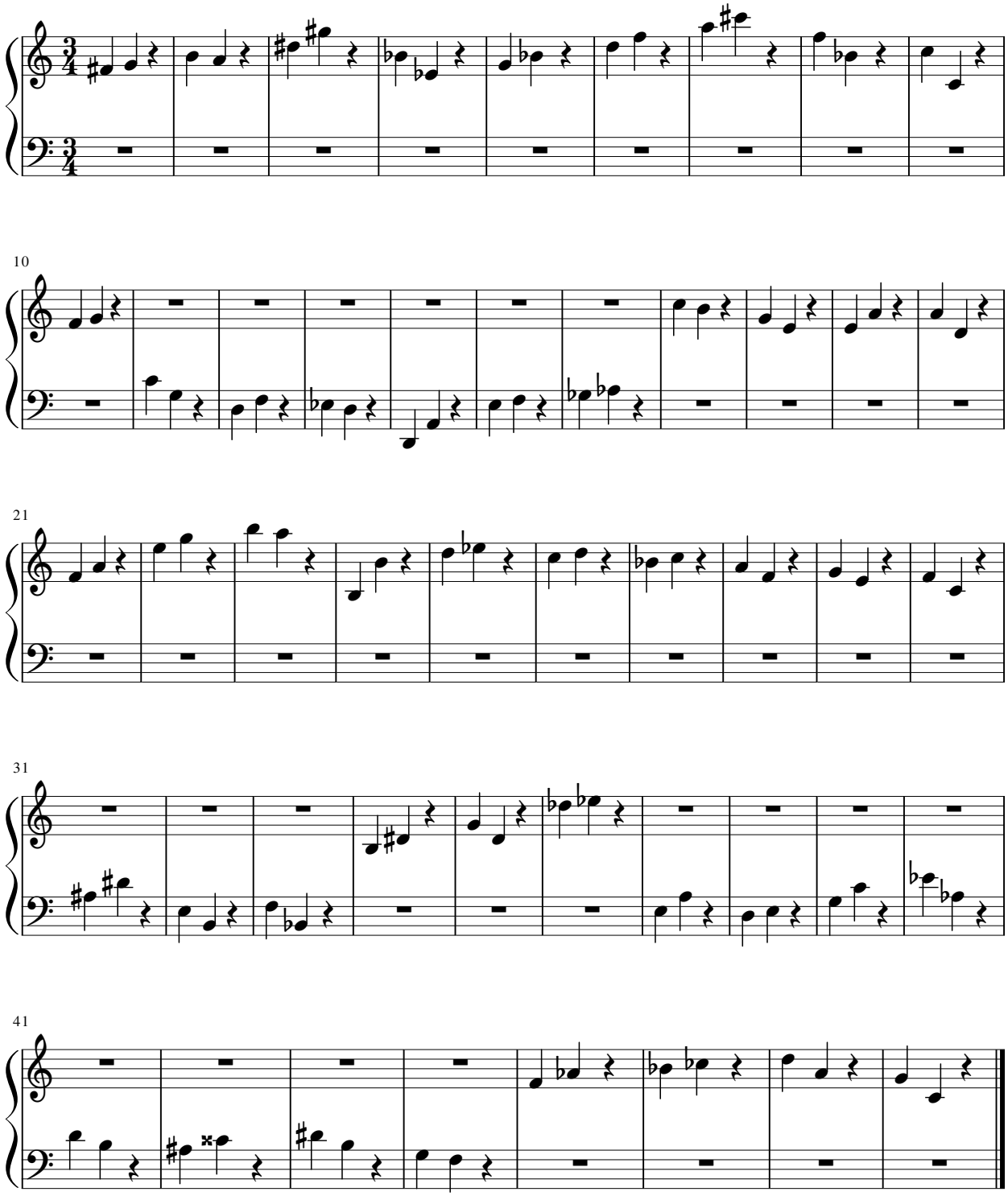
Nebelung



Lightning Round

2nds-4ths, 5ths, 8ves

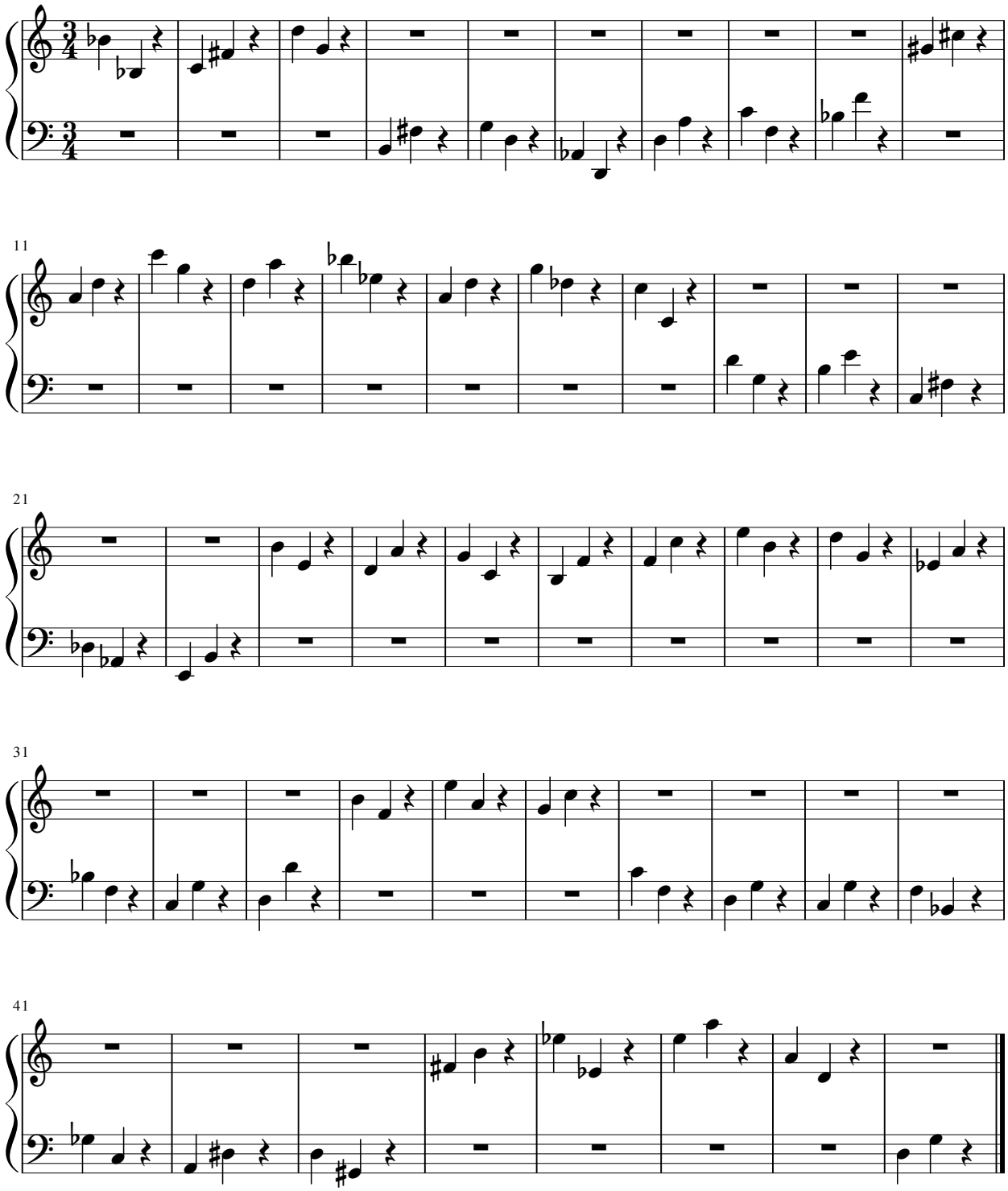
Nebelung



Lightning Round

4ths-5ths, 8ves

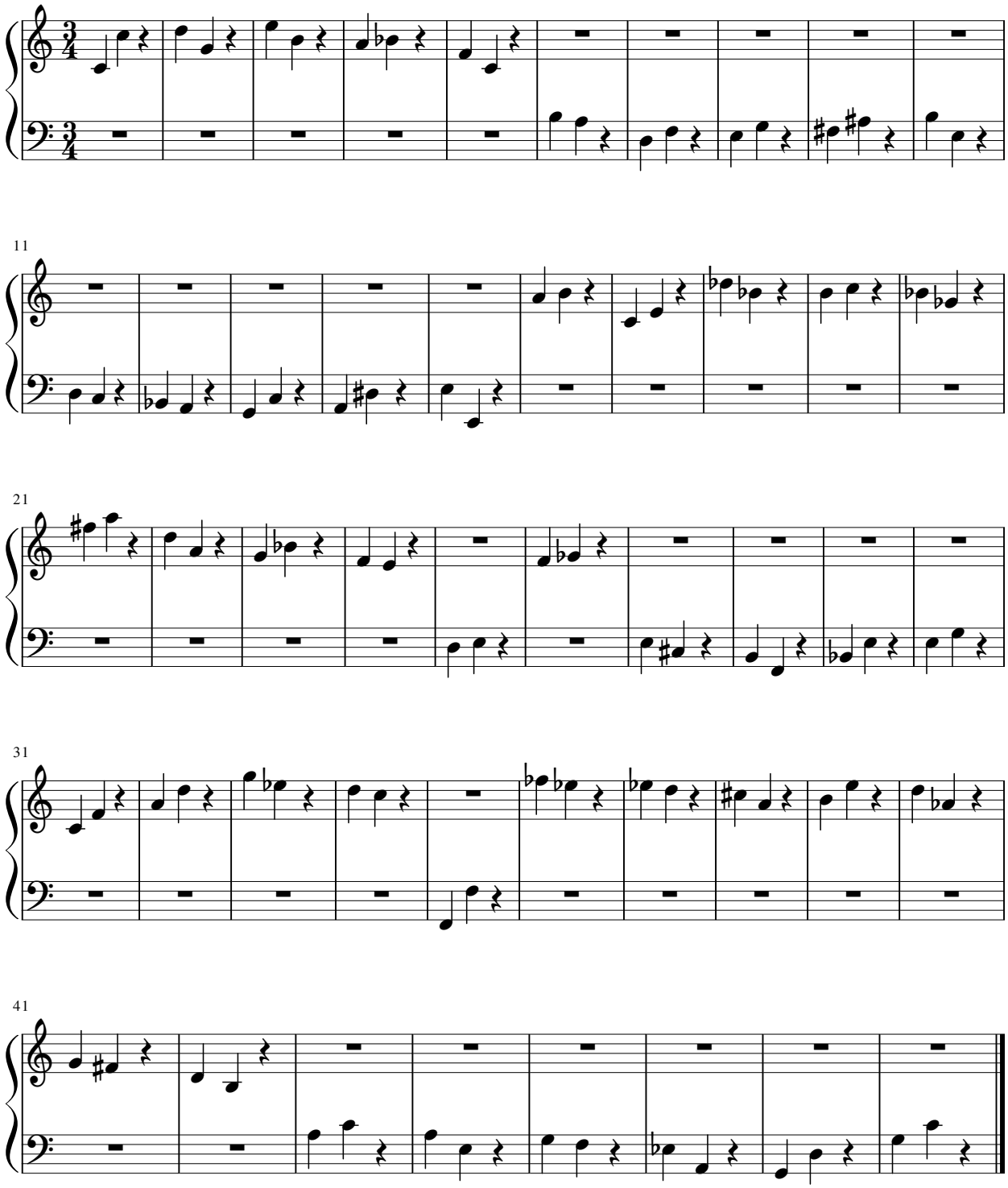
Nebelung



Lightning Round

2nds-5ths, 8ves

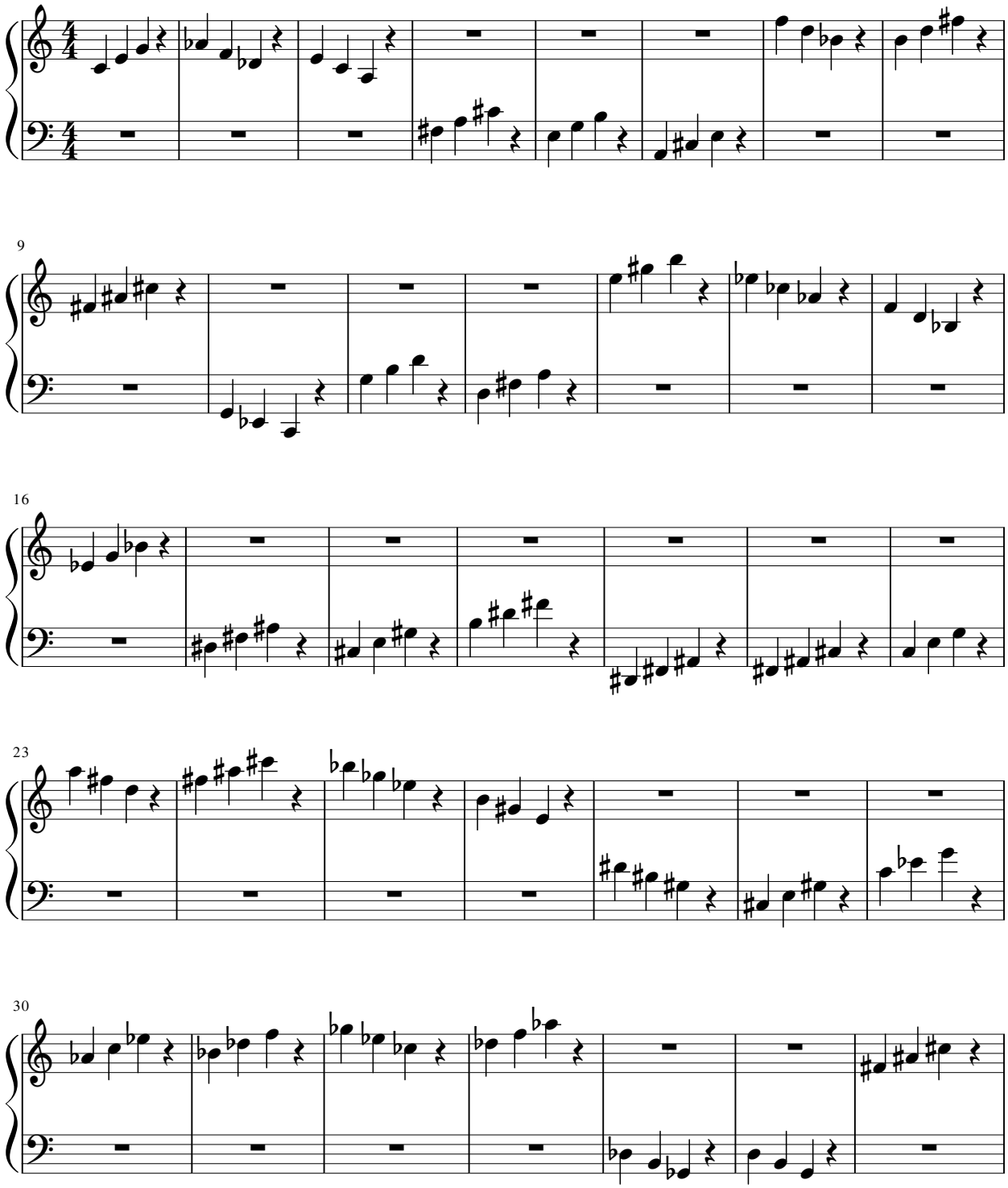
Nebelung



Lightning Round

Maj/Min Triads

Nebelung



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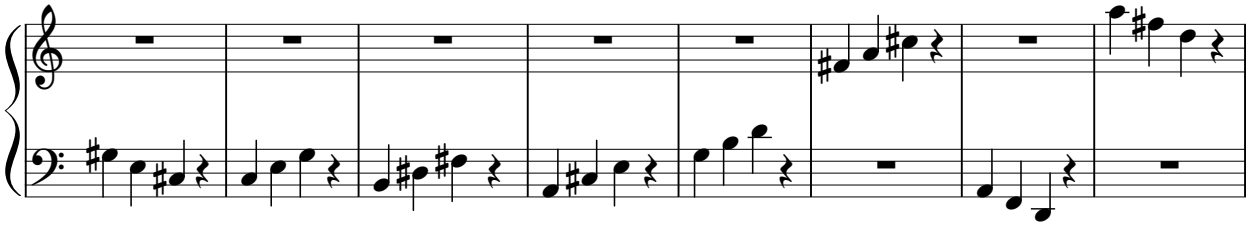

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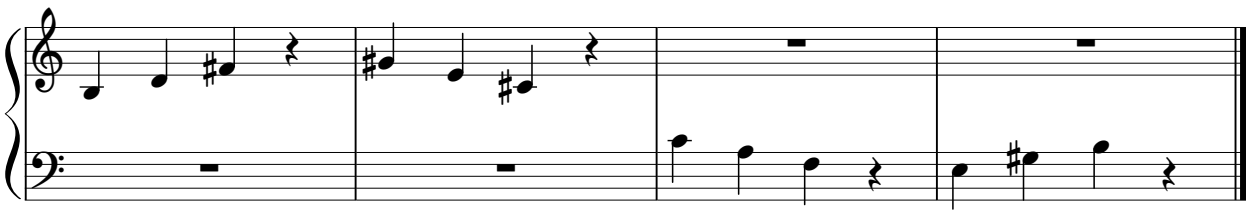
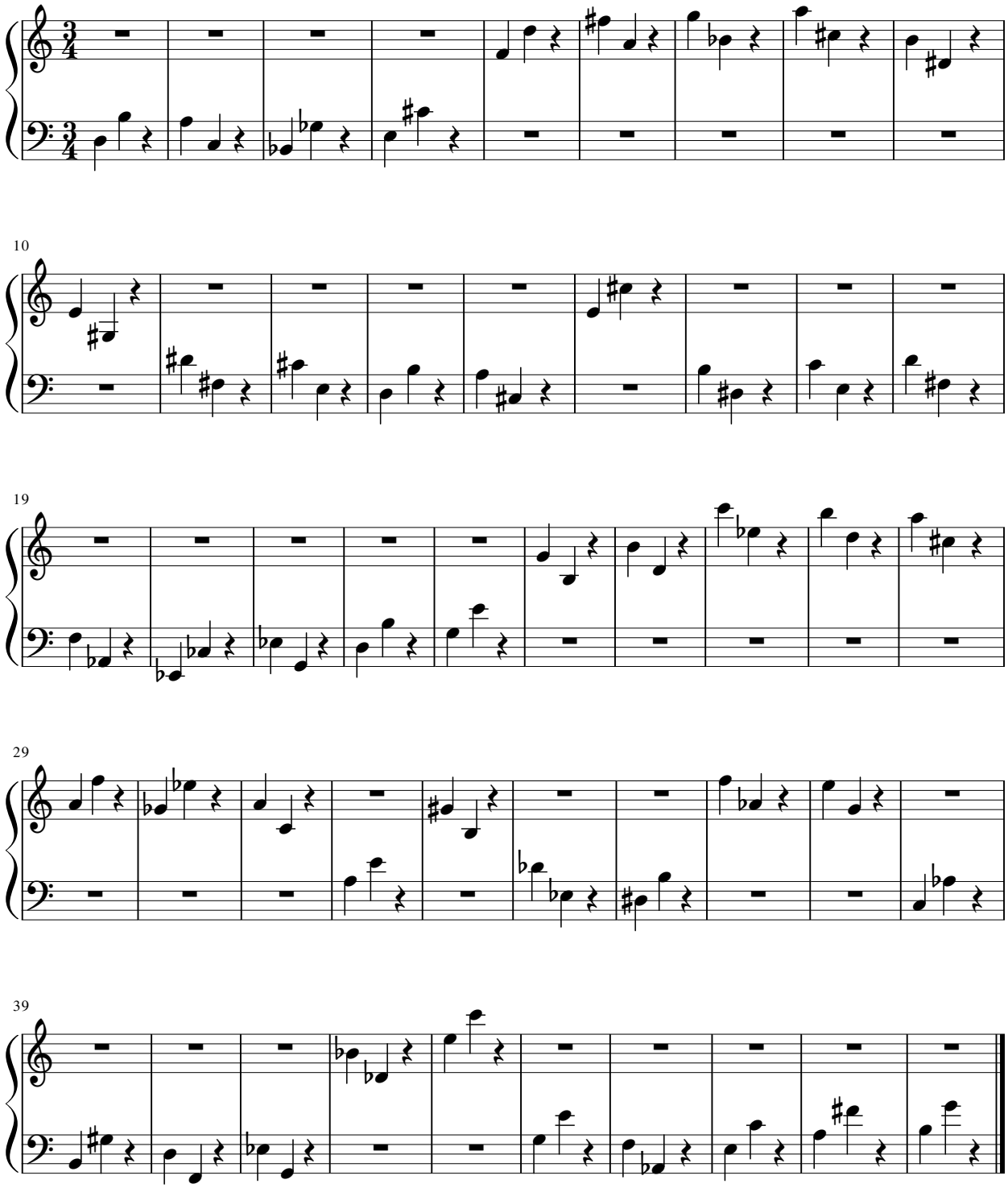


Lightning Round

6ths

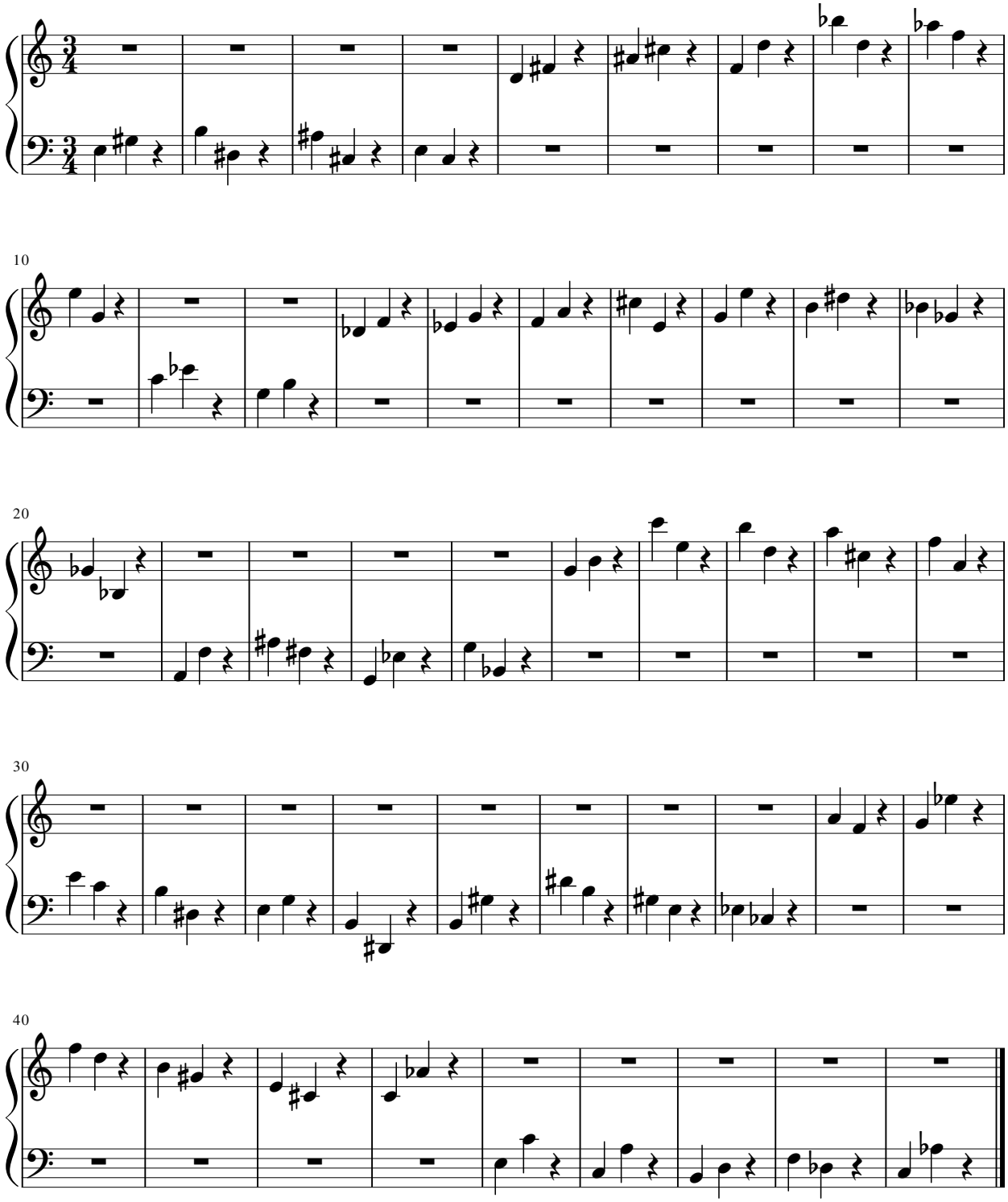
Nebelung



Lightning Round

3rds, 6ths

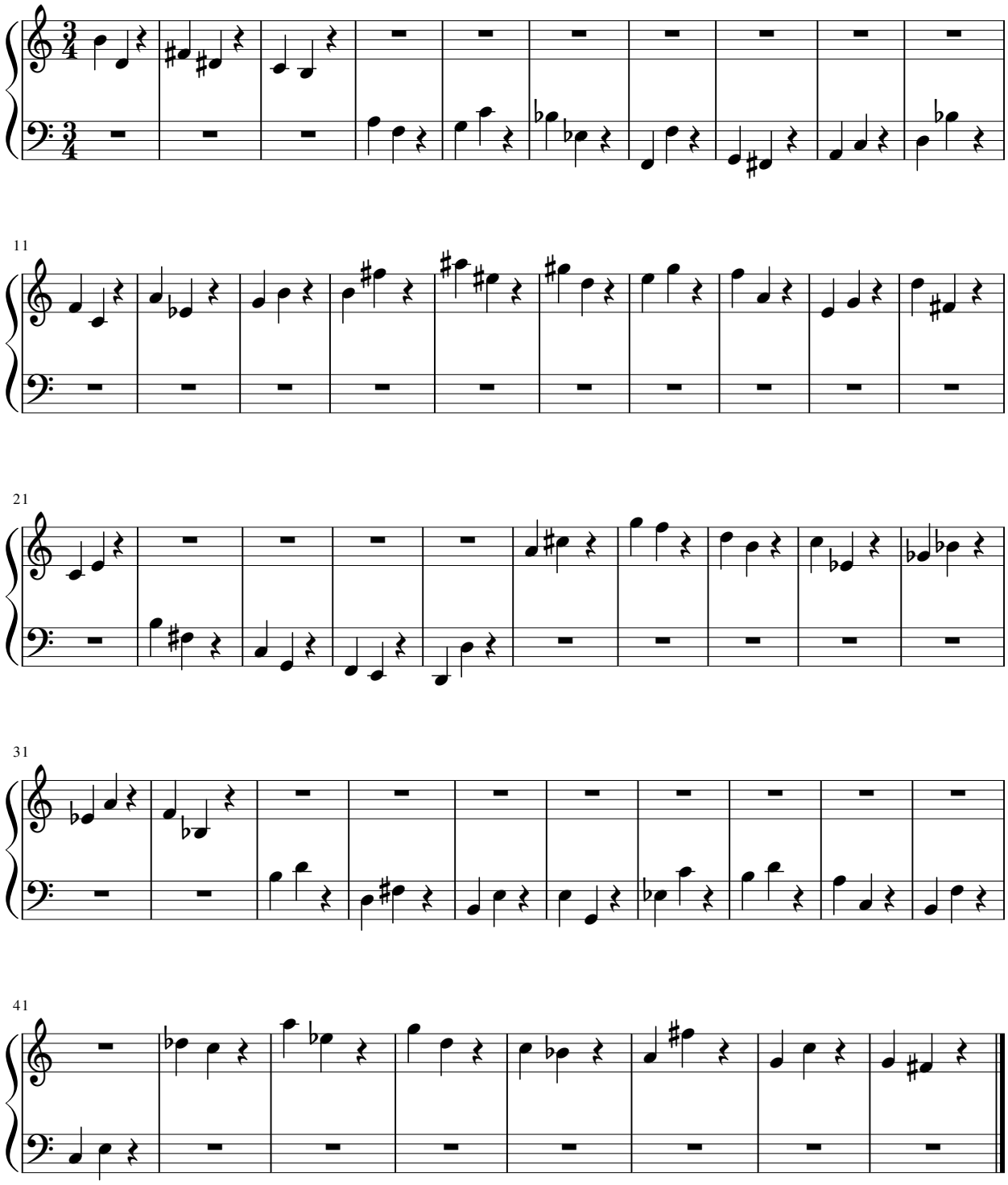
Nebelung



Lightning Round

2nds-6ths, 8ves

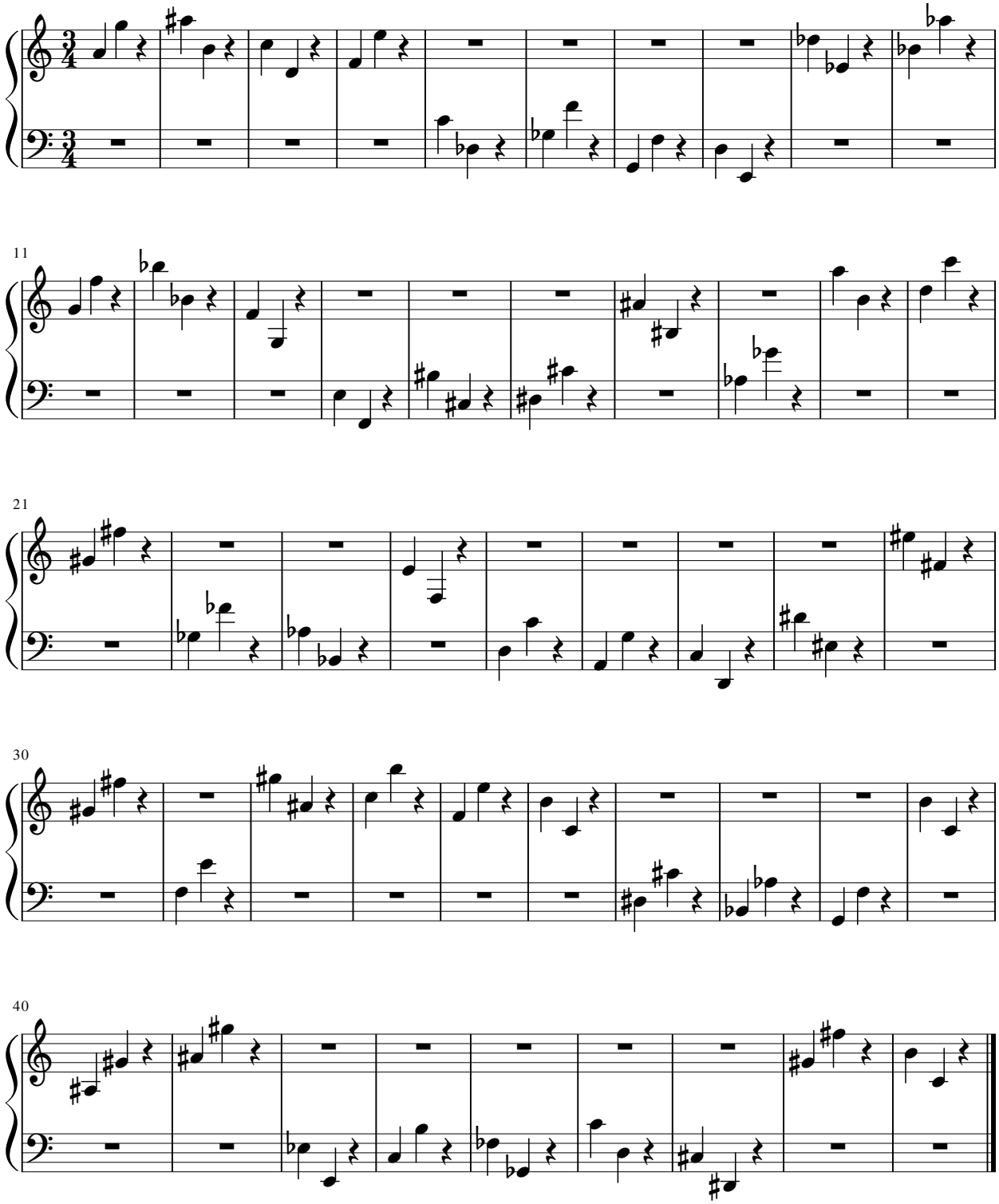
Nebelung



Lightning Round

7ths

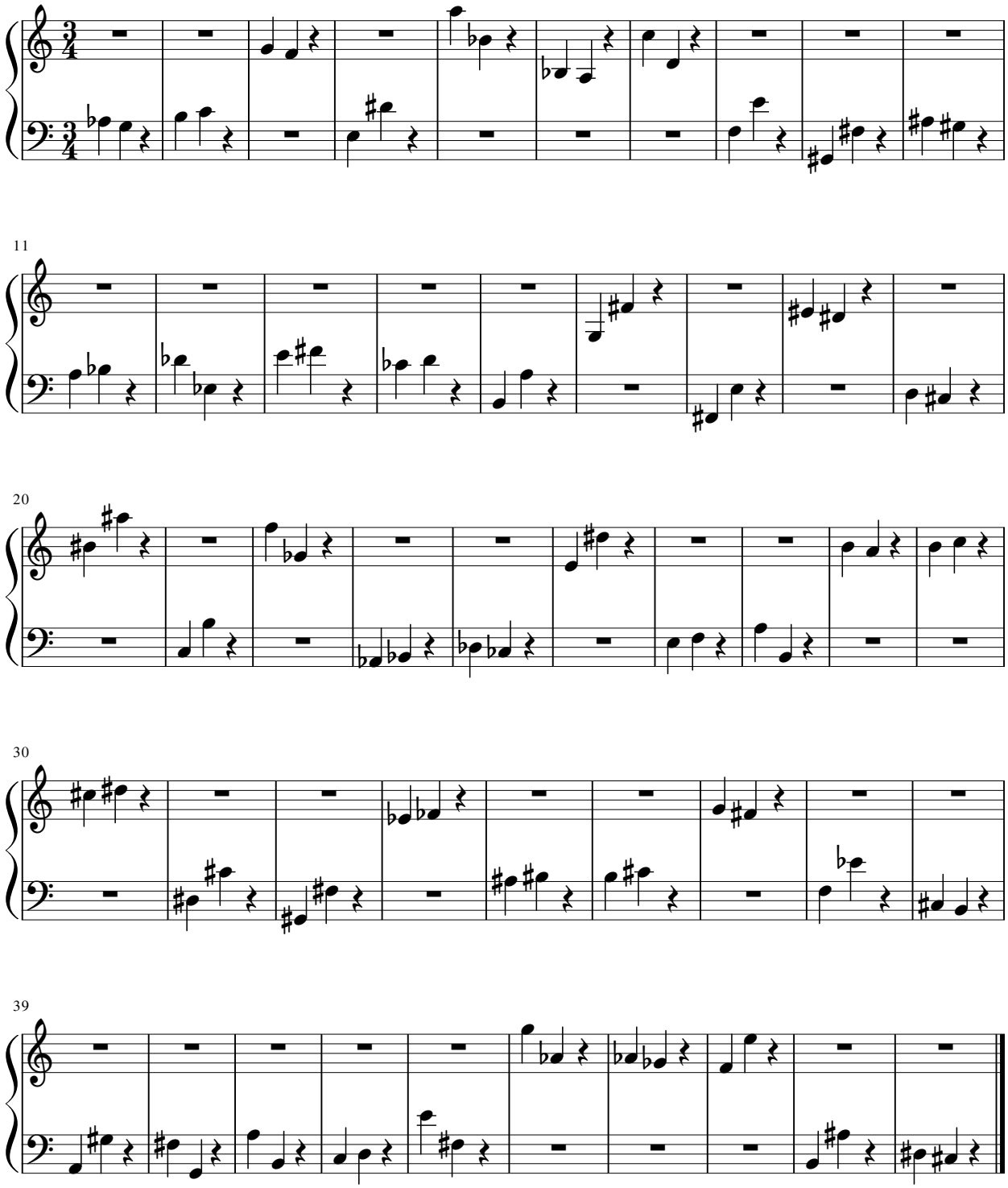
Nebelung



Lightning Round

2nds, 7ths

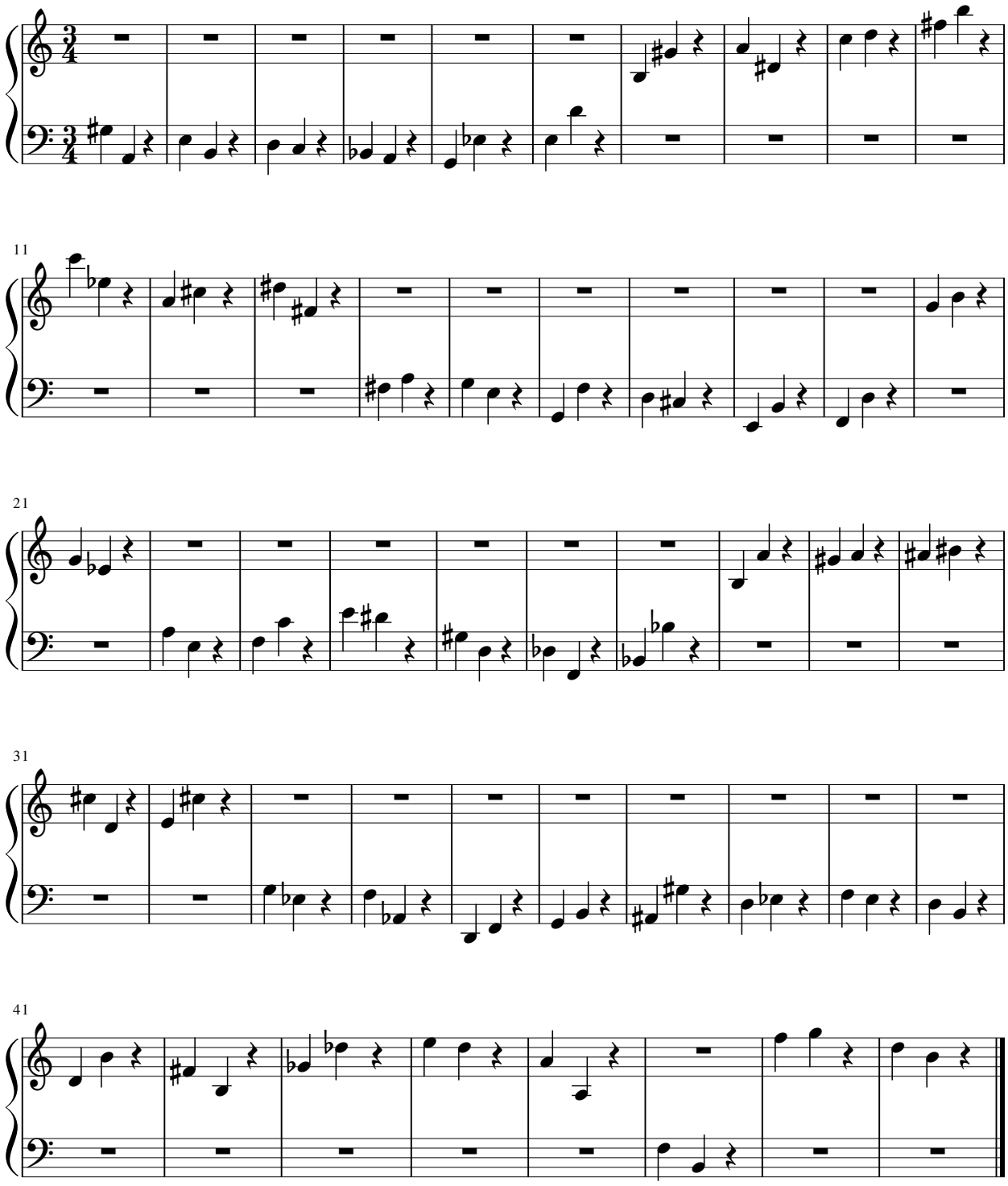
Nebelung



Lightning Round

2nds-8ves

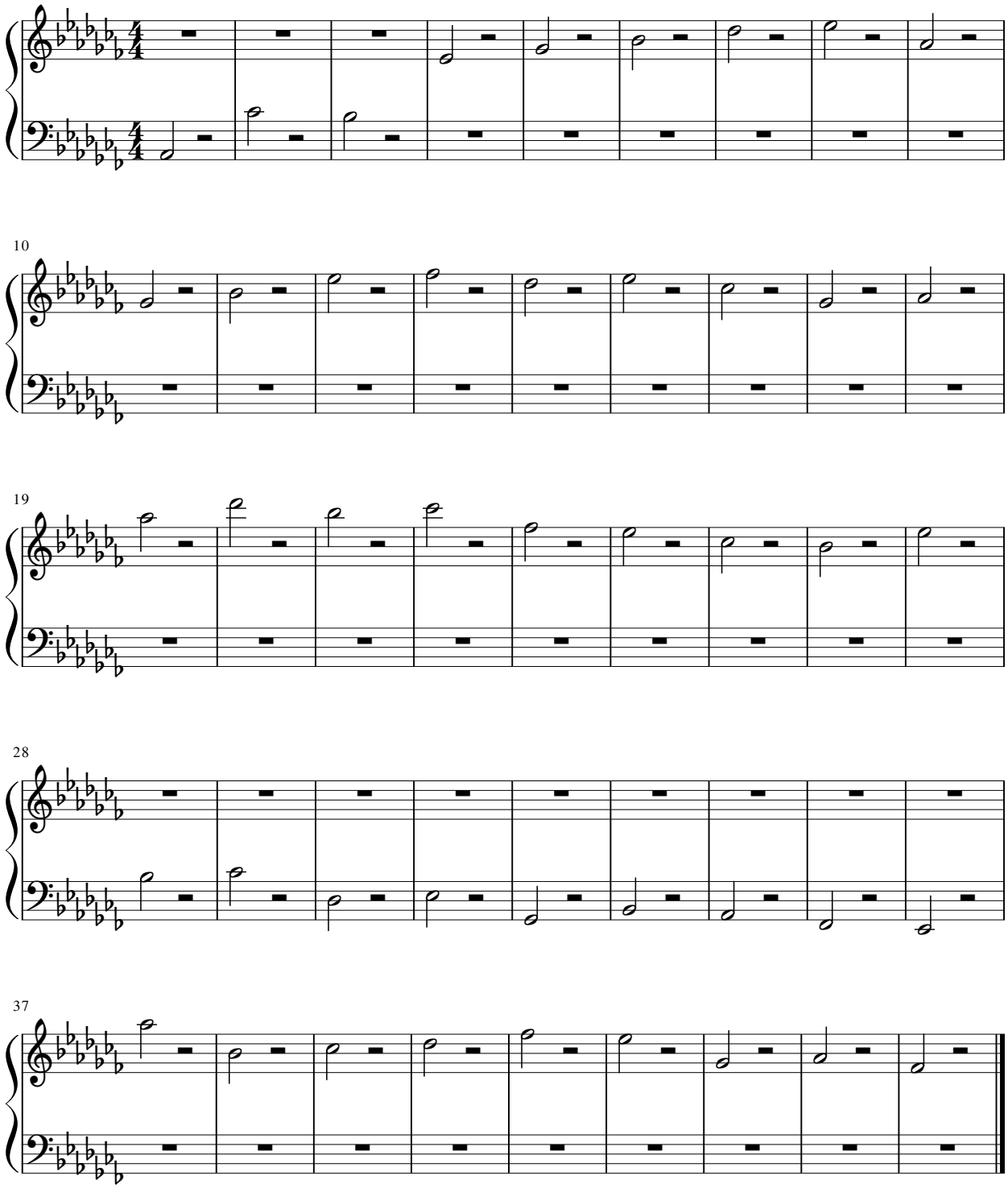
Nebelung



Scale Degrees

Ab Minor

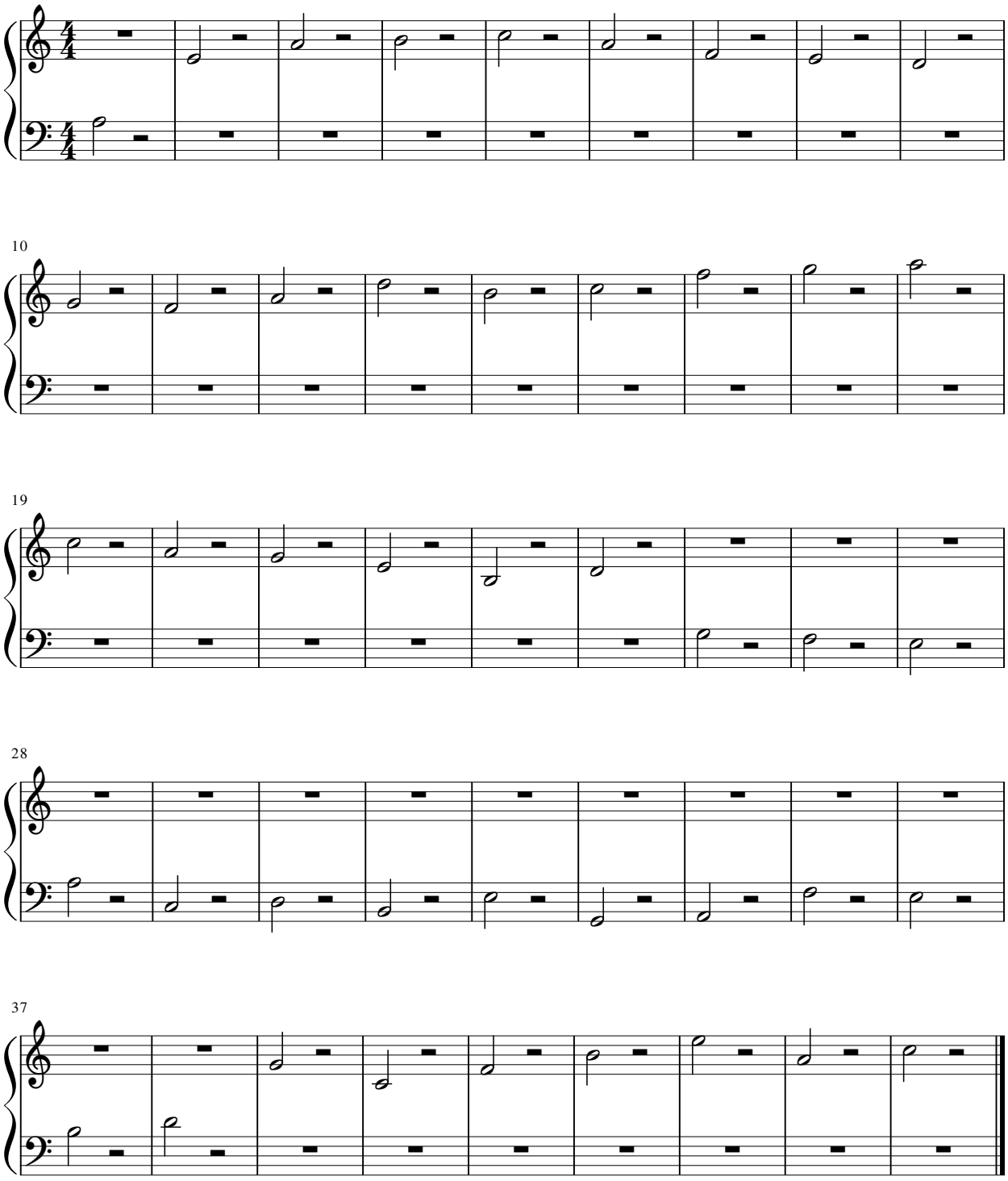
Nebelung



Scale Degrees

A Minor

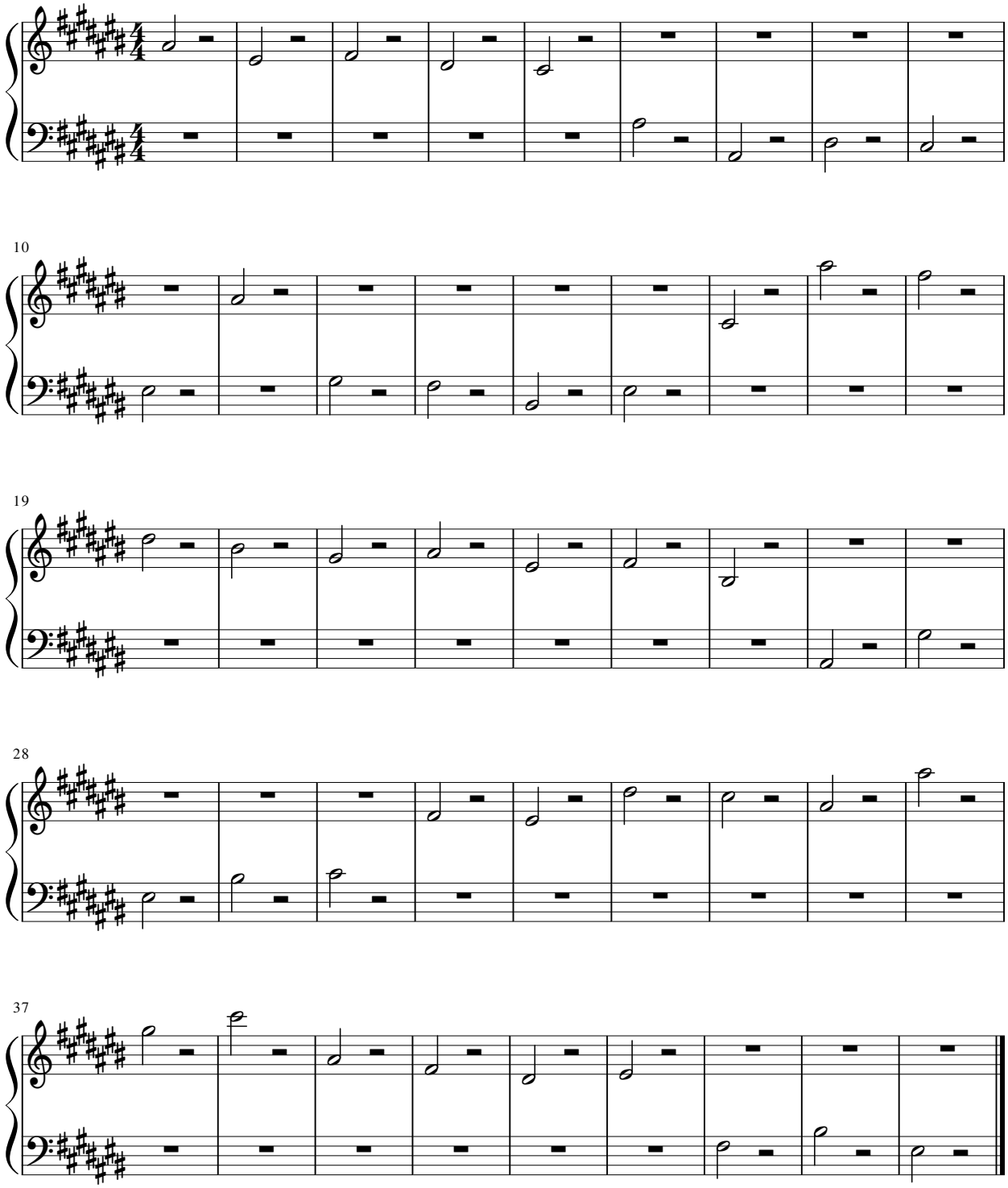
Nebelung



Scale Degrees

A# Minor

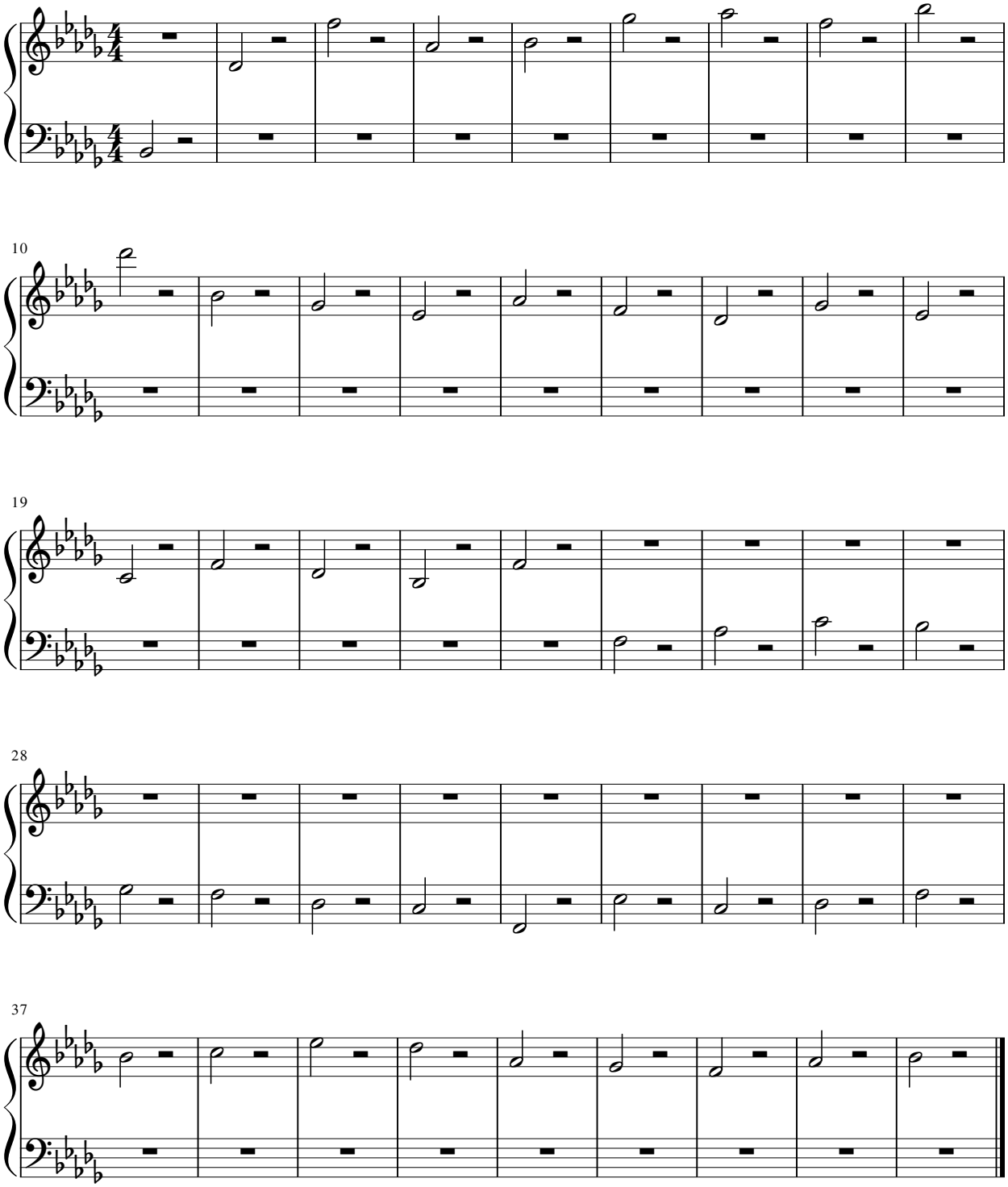
Nebelung



Scale Degrees

Bb Minor

Nebelung



Scale Degrees

B Minor

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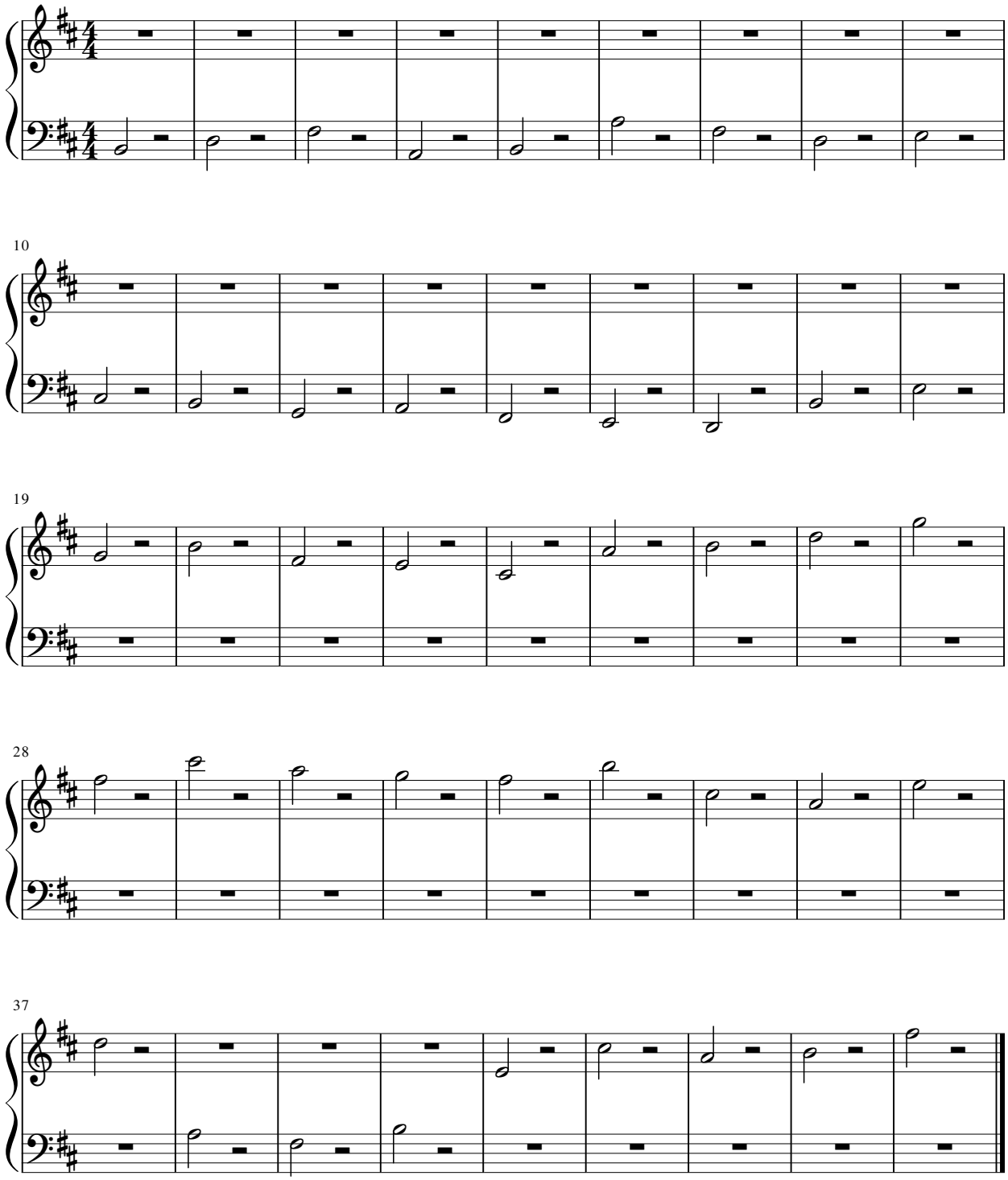

Scale Degrees

C Minor

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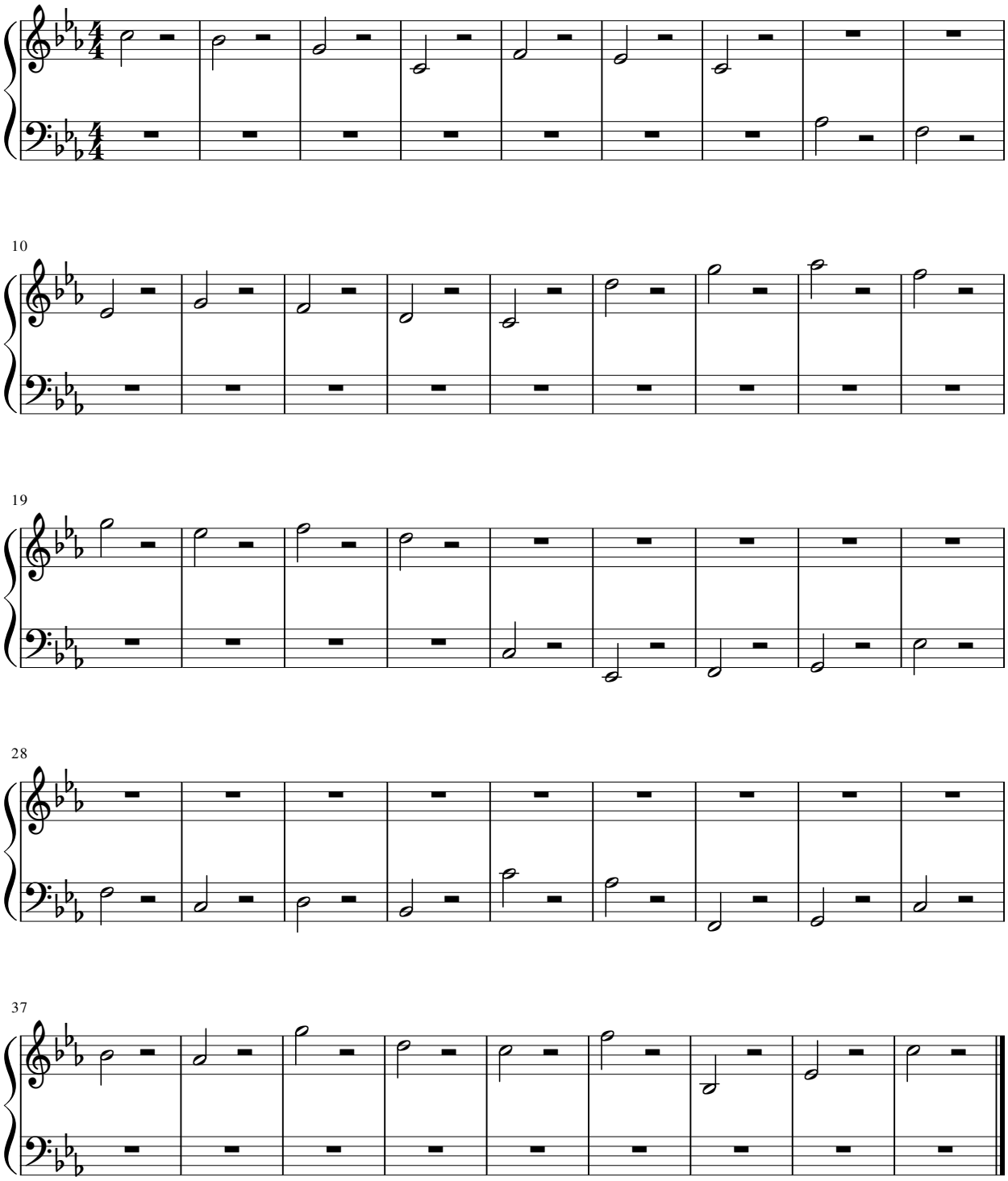

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C# Minor

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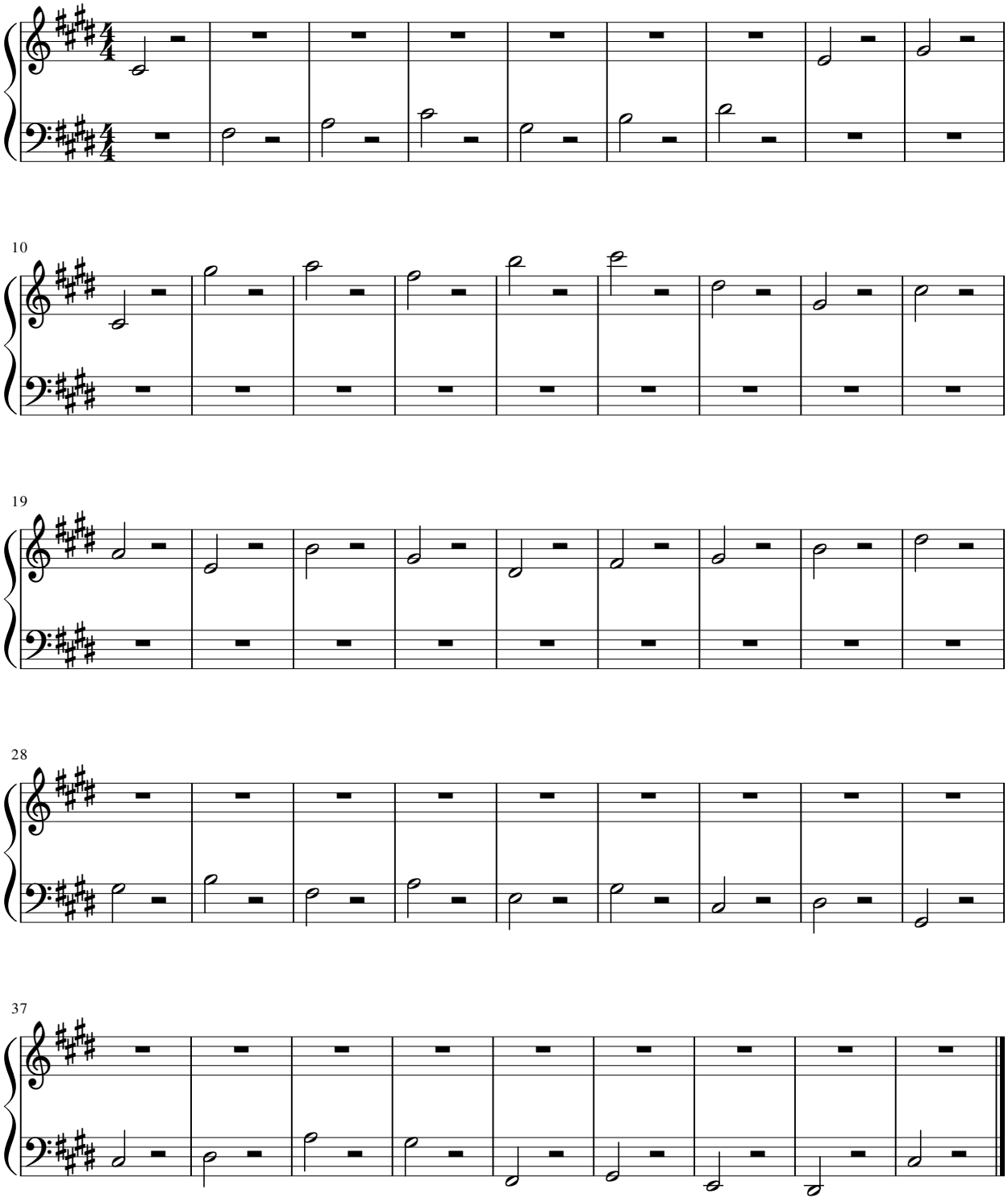
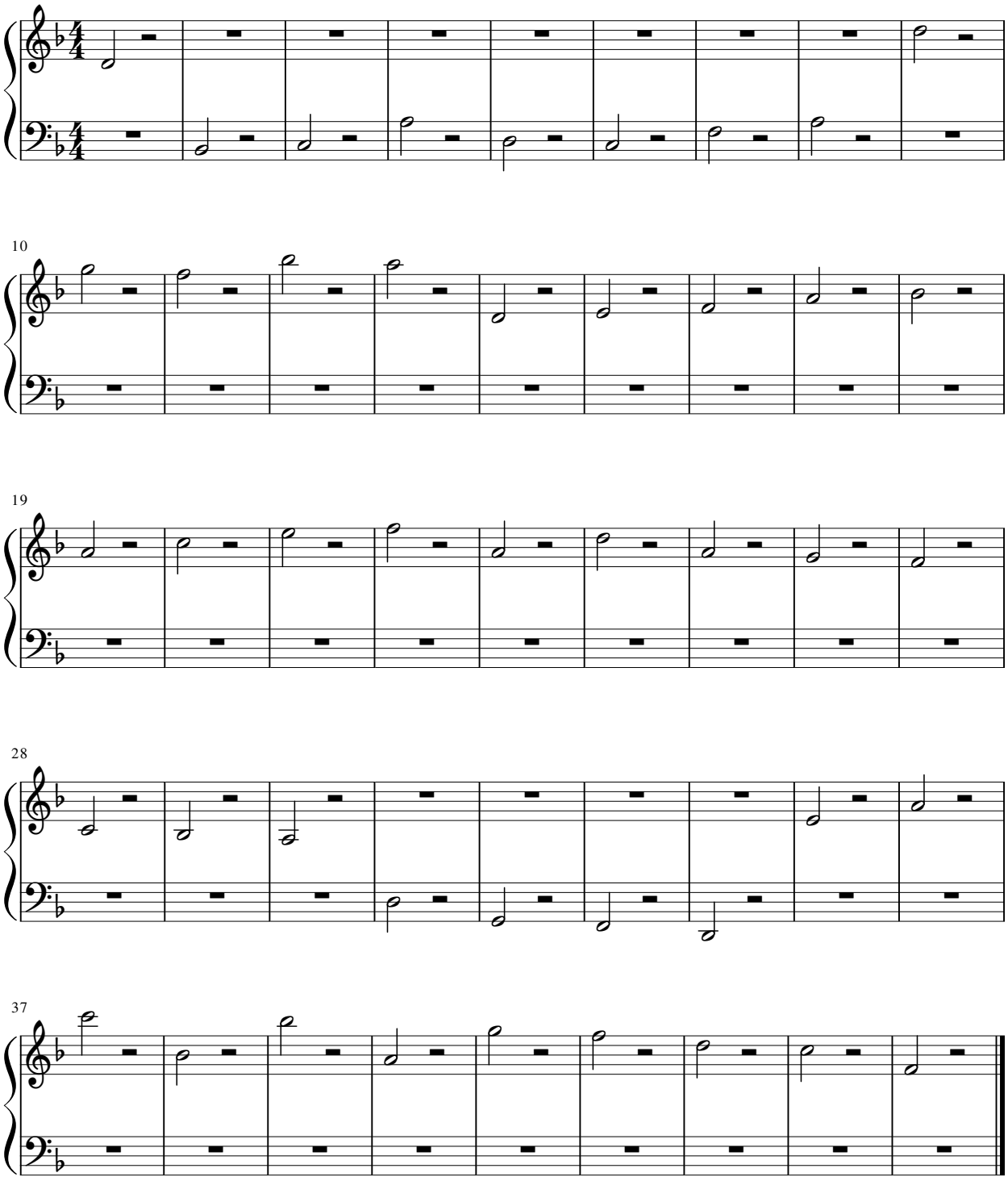


Scale Degrees

D Minor

Nebelung



Scale Degrees

D# Minor

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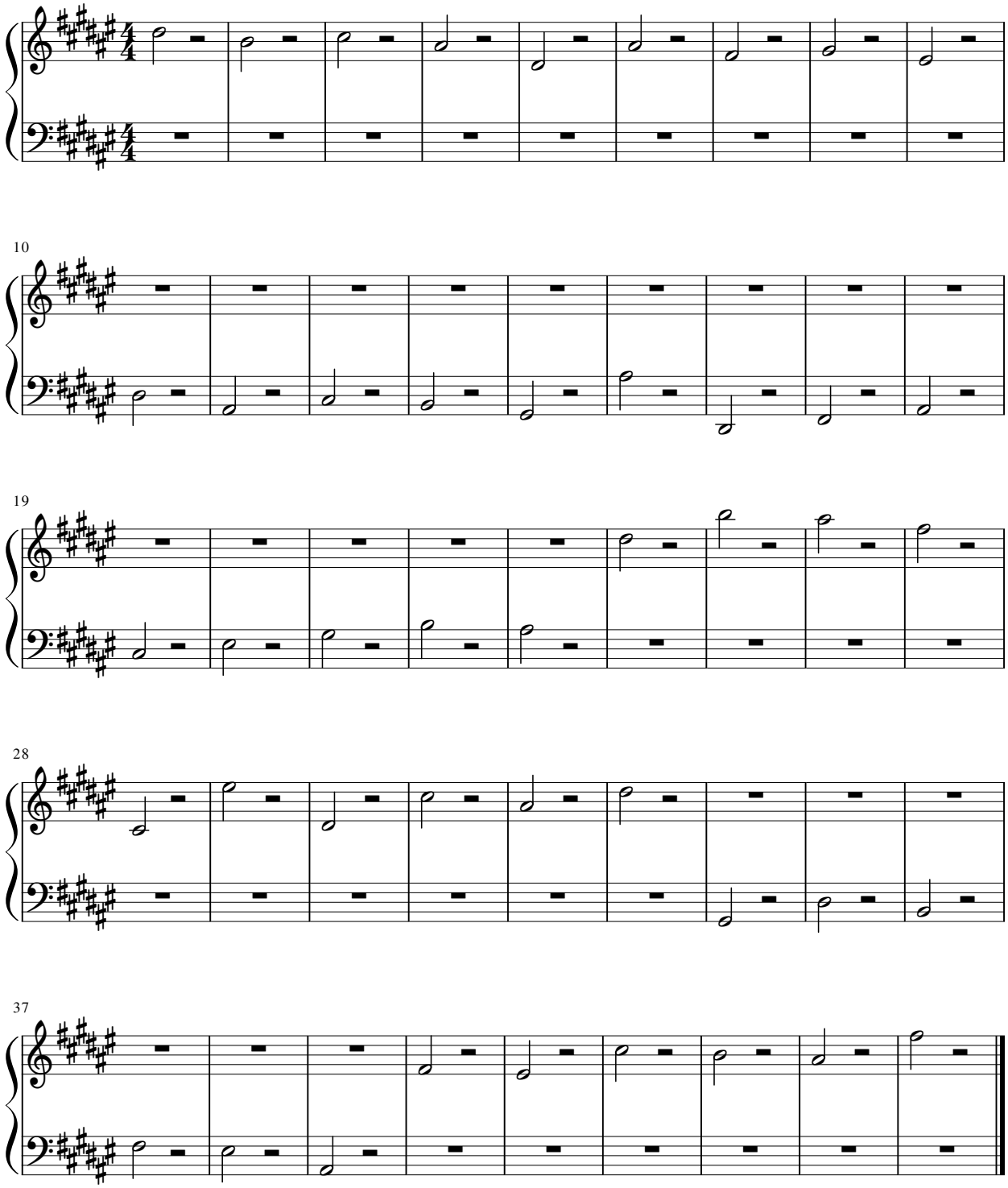
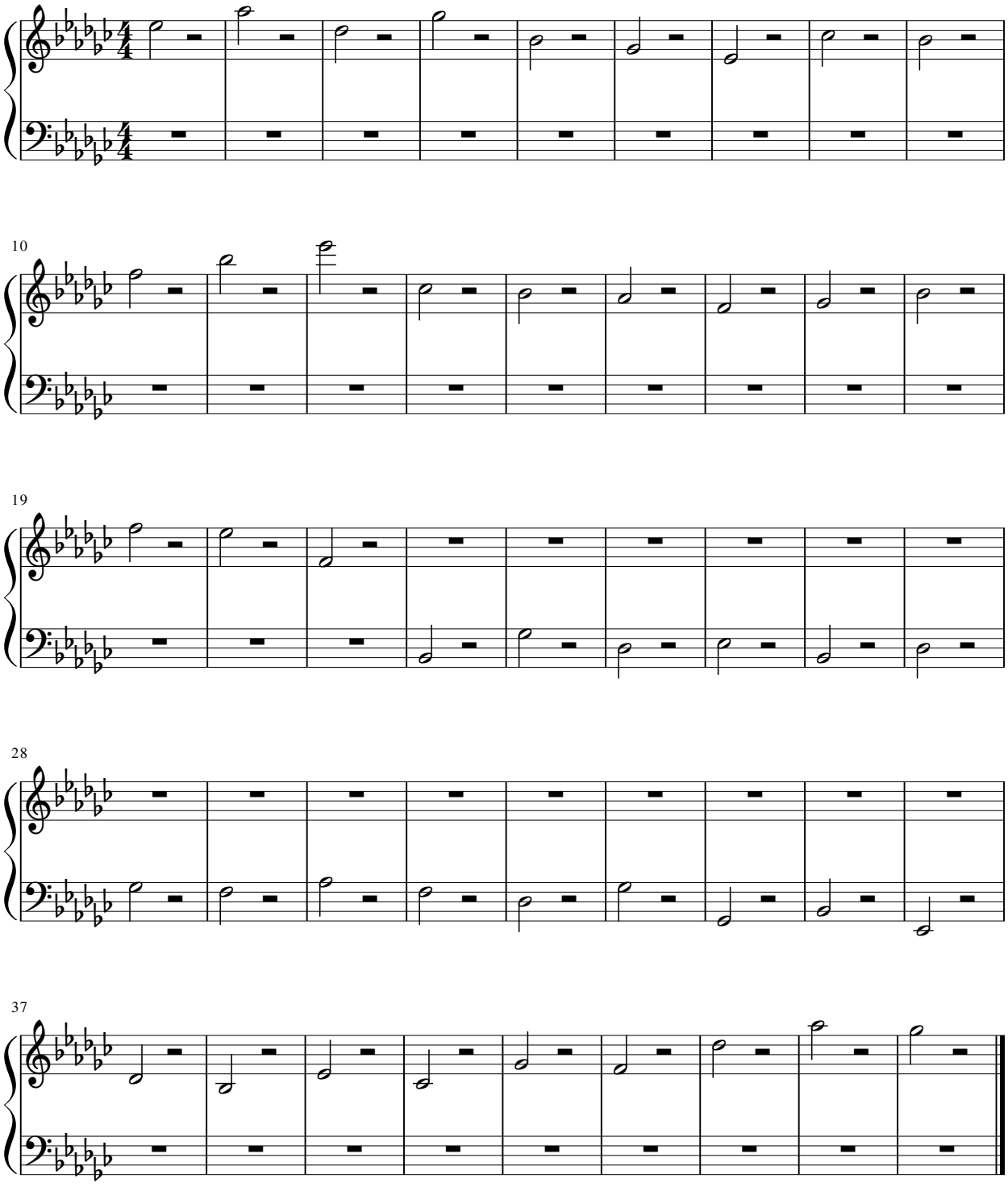


Scale Degrees

Eb Minor

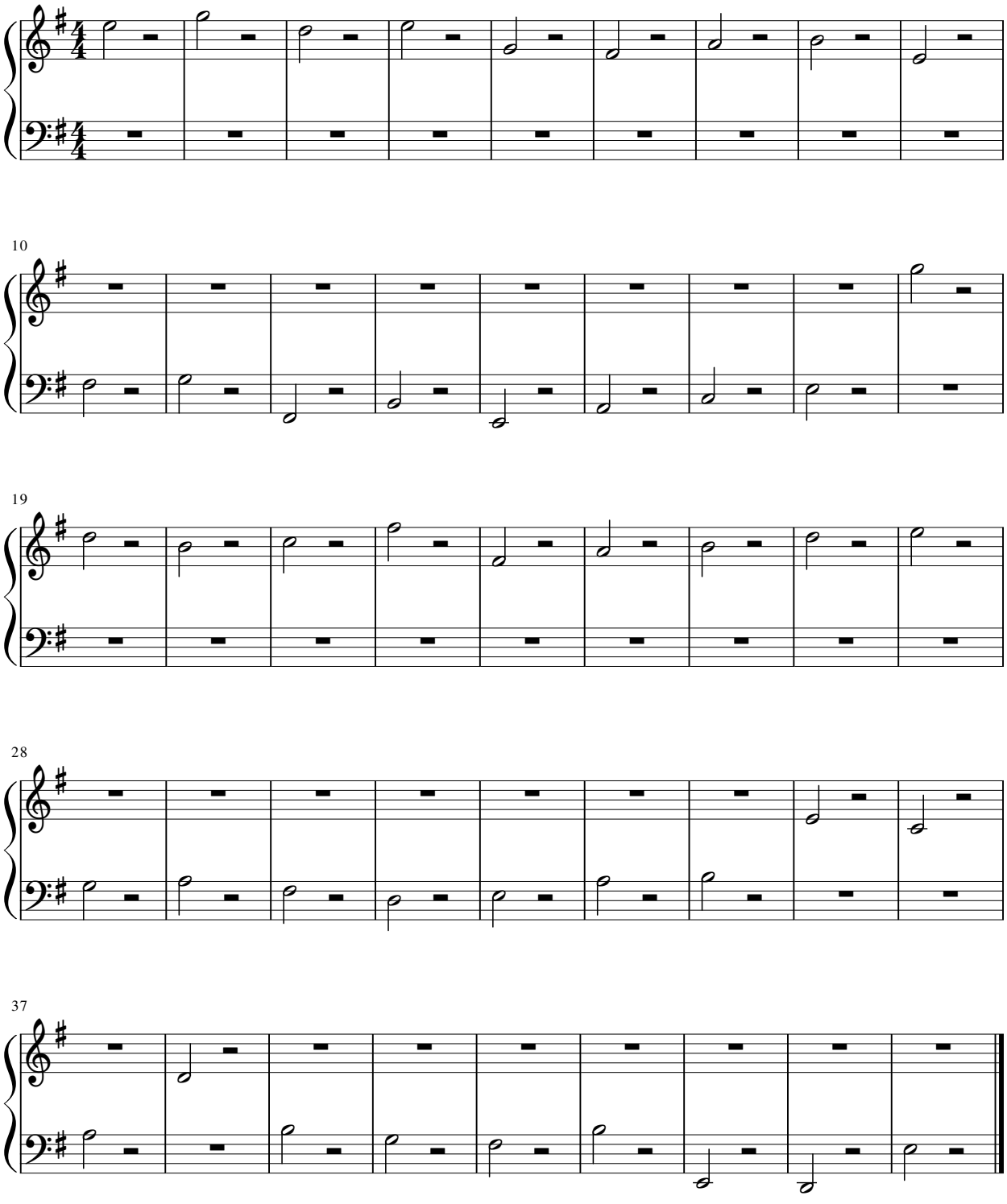
Nebelung



Scale Degrees

E Minor

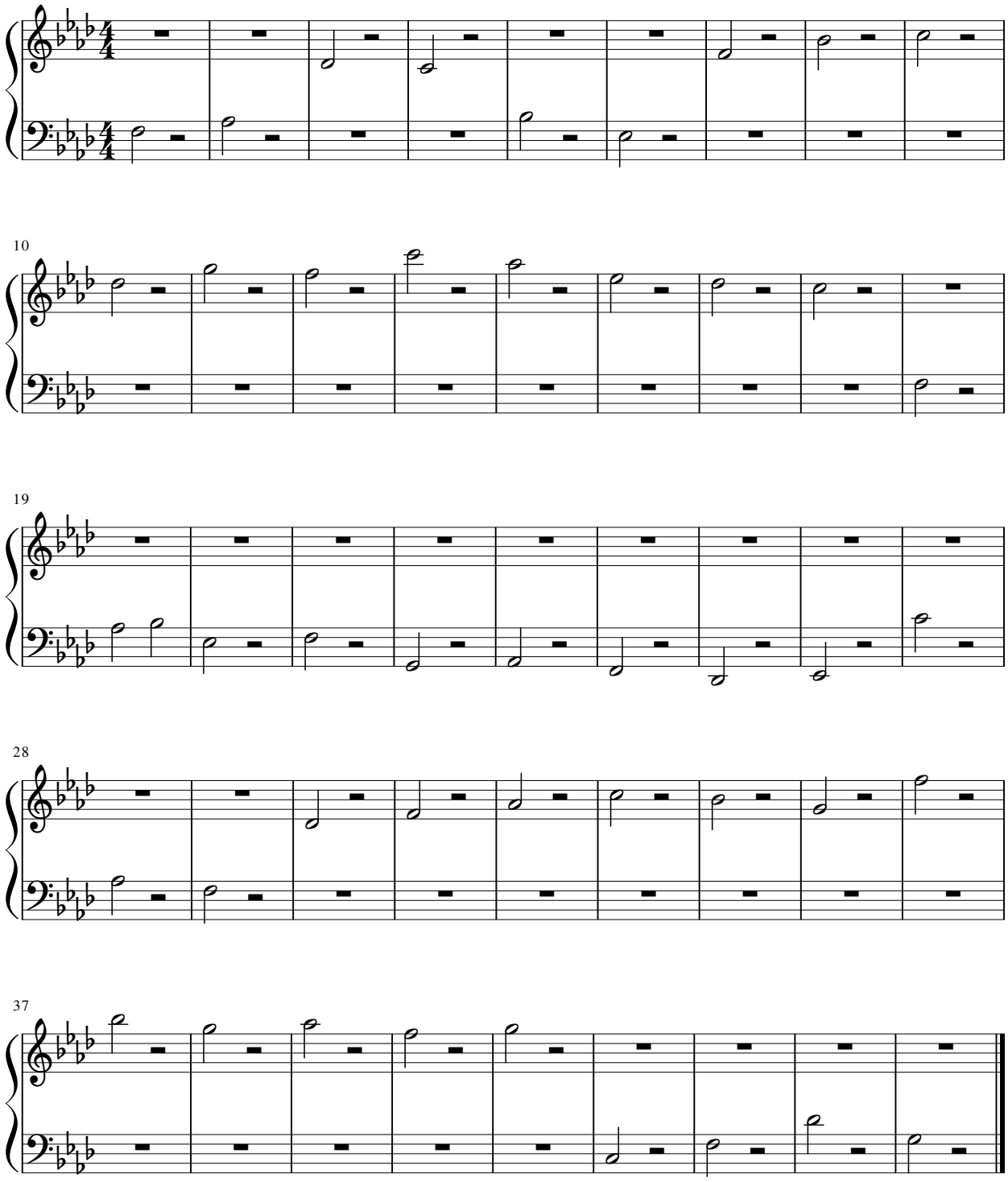
Nebelung



Scale Degrees

F Minor

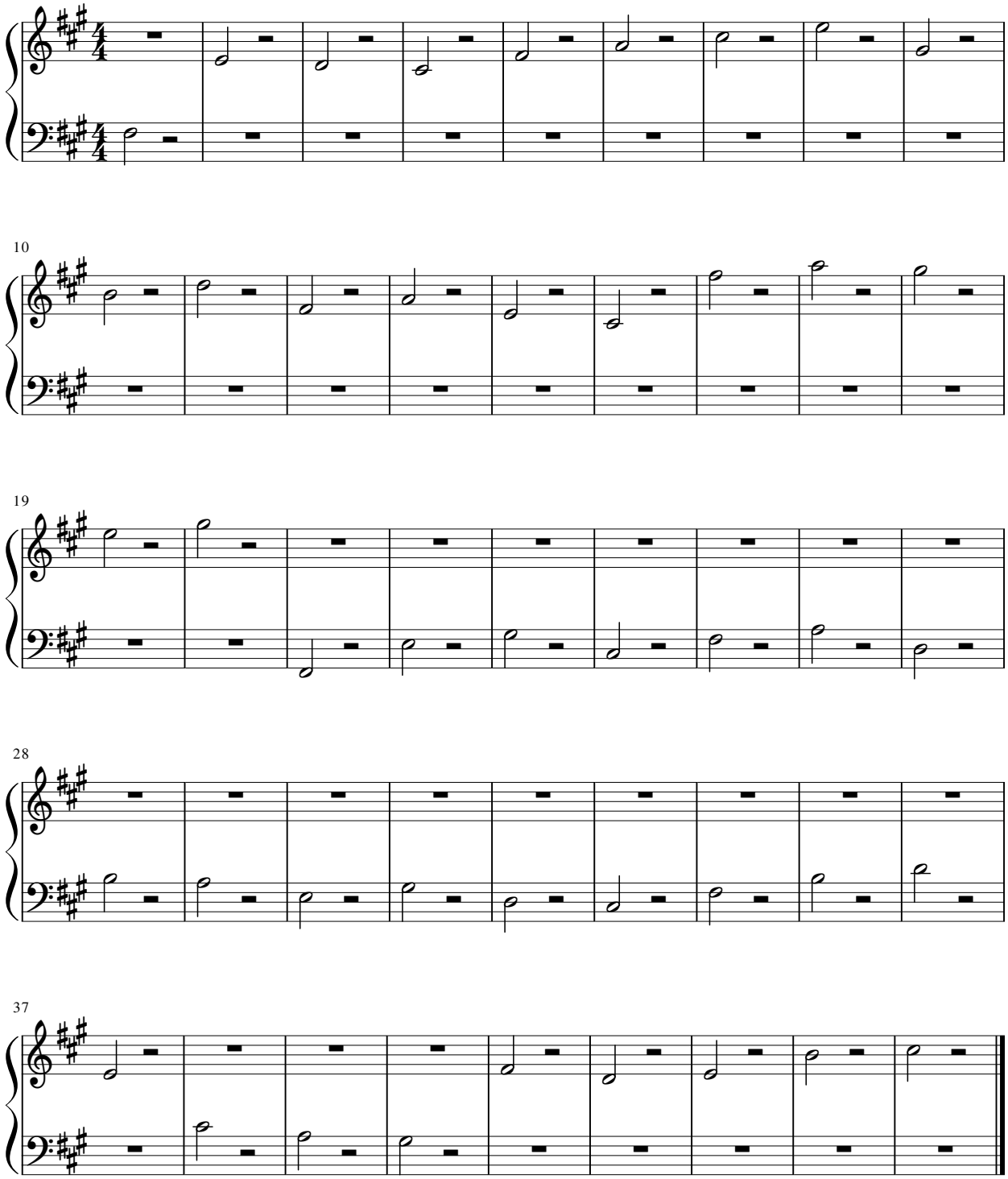
Nebelung



Scale Degrees

F# Minor

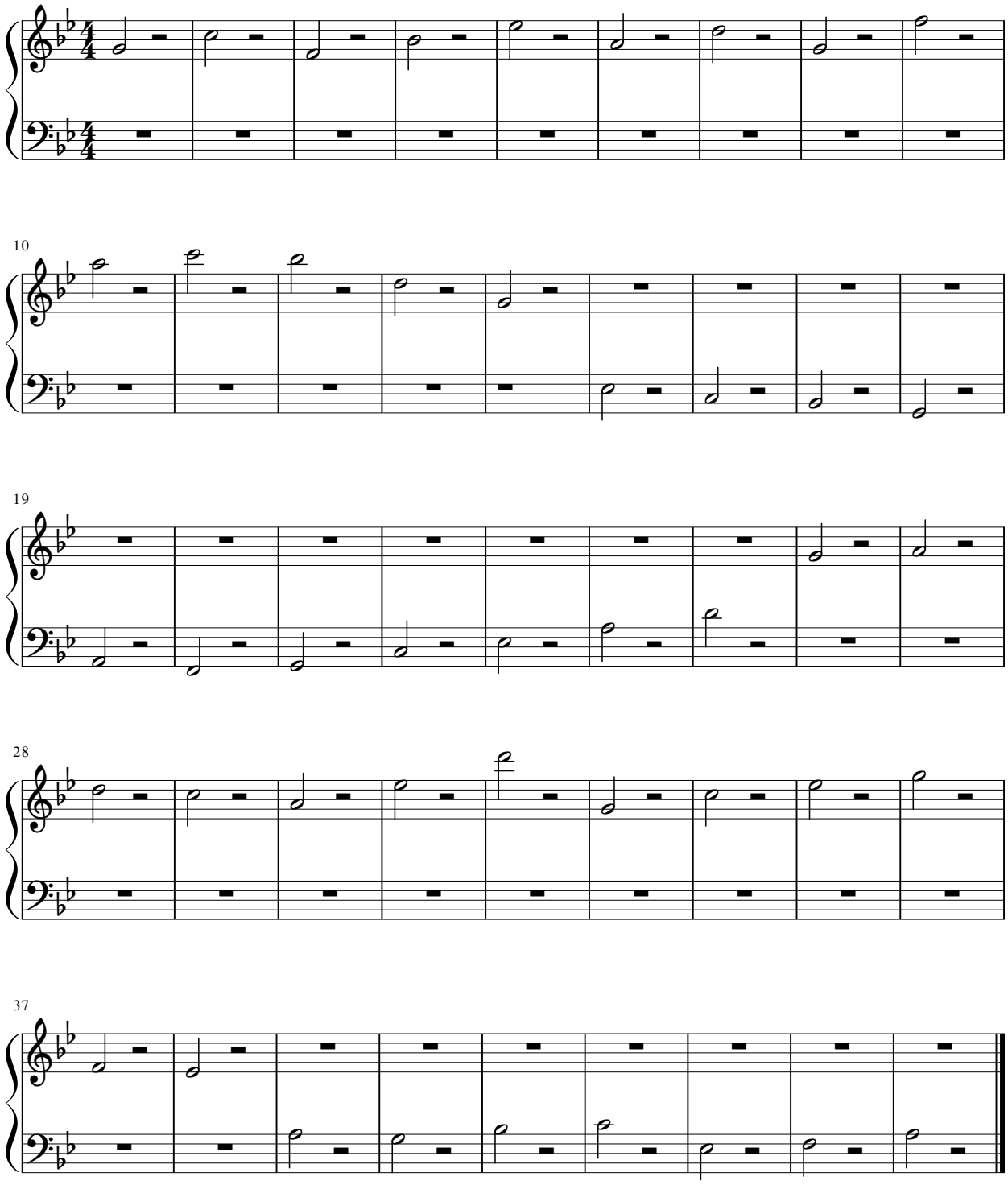
Nebelung



Scale Degrees

G Minor

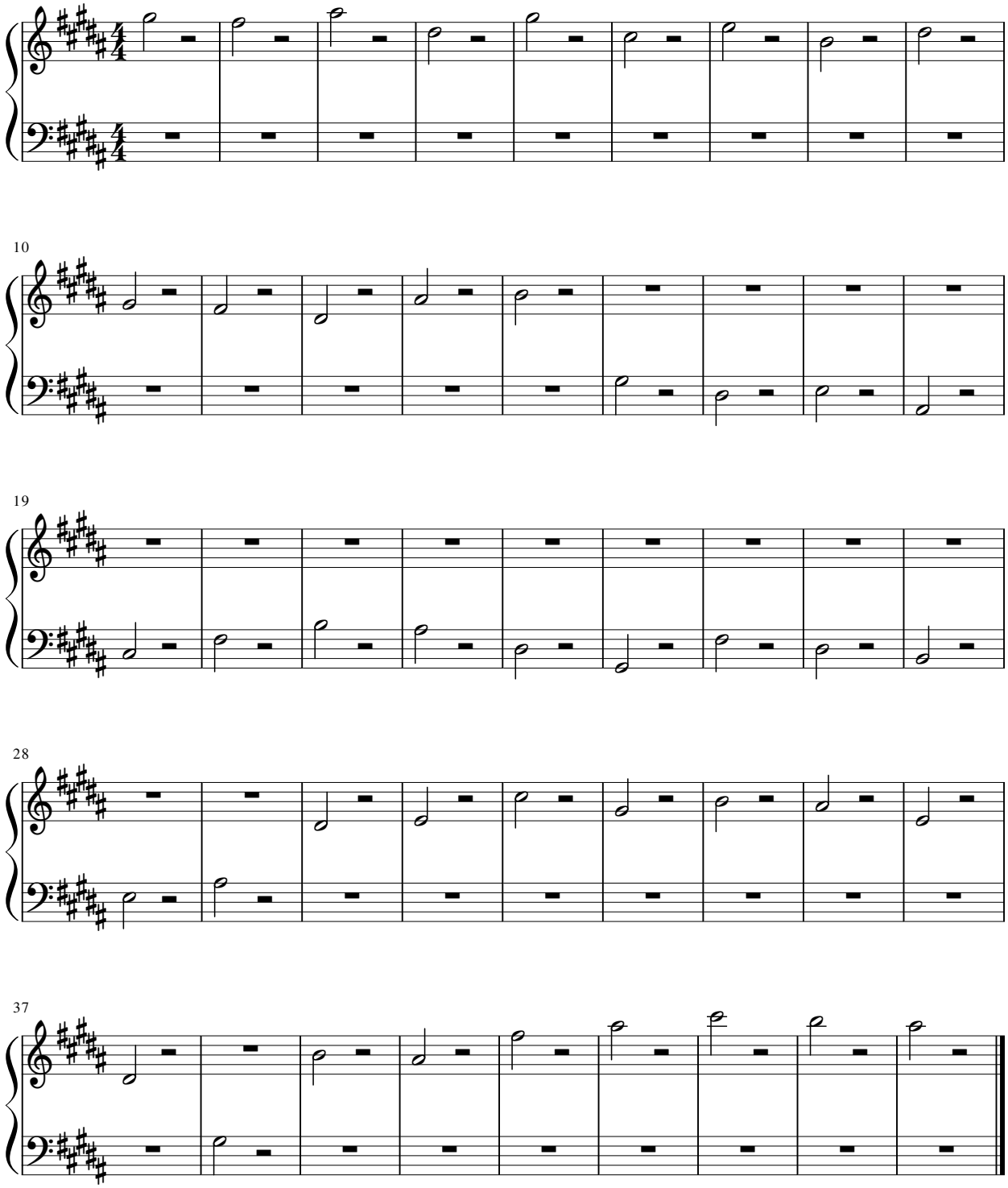
Nebelung



Scale Degrees

G# Minor

Nebelung



Interval Qualities

Interval Qualities:

Each interval possesses a unique quality that must be internalized in order to learn how to recognize it upon hearing or recall it upon seeing. Although one must experience each interval in their own way, the qualities each interval possesses are universally recognizable. As such, the following sets of descriptors presented here represent how I and others have experienced these intervals. Do not feel compelled to ascribe these particular descriptions to your relationship with an interval, rather use these words as guides to help you develop a sense of each new sound. Be sure to write down your own perceptions, no matter how weird you may think they are! The process of putting this aural experience into words involves soaking in the sounds of the interval (ascending, descending, and harmonic) while filtering them through your own life experiences, which guarantees that you will develop strong associations with these sounds. Leave no senses unturned.[1]

Minor 2nd

Acidic, wrong, out of tune, broken, grating, exceptionally harsh, Jaws, Spanish, Flamenco, Spiritless anguish, dark, scary, flowing, scalar

Major 2nd

Airy, gritty, small pebbles, grapenuts, rough, sand in the teeth, sandpaper, wheat in the hand, grating, nutmeg grater, sandy spinach, pleasurable longing, flowing, scalar, expectant

Minor 3rd

Bluesy, sad, minor, mellow, soft, sweet, melancholic, stoic acceptance, tragedy, chordal

Major 3rd

Joyful, mellow, major, very ripe apple, thick, bean soup, luscious, peach flavored, pulpy, diffused light, ripe fruit, candy cane, thicker than Major 6th, not as juicy as Major 6th, chordal, vivid

Perfect 4th

Crunchy, pathos, closed, gritty, rough, sandpaper, slightly astringent, thick, heavy, rich, oily, hard, lumpy, certain richness, rich cloth, velvety, polished ebony, shiny and dark, rich crumbly cake in the mouth, lustrous, shiny metal, ball of crushed paper in the hands, harsh rich, feel of cotton wool, punchy

Tritone

Emergency siren, annoying, develish, inimical, painful, out of tune, disdain, unstable, quirky, funny character, uncoordinated, a dissident

Perfect 5th

Neutral, open, strong, stable, hollow, hollow tree, horn calls, no body, cavernous, wooden box, thin, dilute, clear soup, rough like tweed suiting, hollow rough like husky voice, church music, pillars, Renaissance, resonant, powerful

Minor 6th

Angsty, piquant, overshot 5th, major chord, active anguish, a sweet tritone, pointy, incomplete, longing, sweet and sour, masculine, romantic

[1]Many of the descriptions listed here are found in the following article. Edmonds, E. M., and Smith M. E, "The Phenomenological Description of Musical Intervals," *The American Journal of Psychology* 34 (2), University of Illinois Press (1923): 287-91, Accessed September 7, 2016, http://www.jstor.org.proxyiub.uits.iu.edu/stable/1413583.

Major 6th
Pleasurable longing, joyful, light (opposed to dark), upwards, sweet and satisfying with no sustenance, astringent, puckery and rough, rich, luscious, juicy mellowness, fruity, softly rich, succulent, pudding-sauce, sugar syrup, sweet thick, overshot 5th, basic guitar blues, minor chord, feminine

Minor 7th
Mournful, stark, airy, empty, computerish, digital, inorganic, questioning, airy melon aftertaste, an interjection, slightly off topic, where did that come from?, crisp but soothing, interesting

Major 7th
Violent longing, aspiration, disharmony, disquiet, astringent, persimmon, gritty, vinegar, alum, sharp granular objects, harsh, nippy, biting, blurred, harsh fur, dilute, sour, soft roughness, lamb's wool powder puff, pointed, intentional, evil robot voice

Octave
Smooth, window glass, polished steel, like one note, ice-cream, polished glass, melting molasses, pebble falling in still water, deep, open, stolid, hourglass shaped

Interval Singing

Auralization

1) The ability to hear sounds in the mind.
    a. With regards to relative pitch, this means the ability to hear musical tones in the mind.
2) One must sing to develop it.
3) Silent reading and verbal thinking are both forms of auralization.
4) Always attempt to hear what you would like to sing before singing.
    a. Attempt to auralize.
    b. Match voice to pitch in mind.
    c. The goal is to not search with the voice for the correct pitch, but with the mind.
    d. Searching with the voice is likely necessary to develop this ability.
5) ABA = Always Be Auralizing
    a. Sing songs in your mind, then attempt to sing them on pitch.
    b. Do your best to imagine what you play before playing.
    c. When reading music, attempt to hear the notes on the score as though you are performing them without playing anything.
    d. Read/think with different inner voices, such as a famous actor's.
    e. Imagine a song you know as though it is being performed with different instrumentation or different singers.
    f. Listen to your surroundings. If you hear a bird sing, play it back in your mind. Sing it in your mind; then sing it out loud. Can you write it down?

Singing Drill Tips

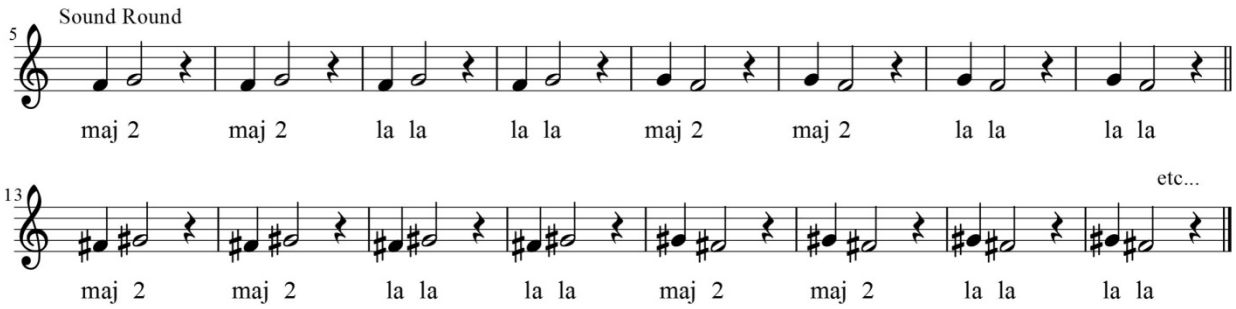
1) Begin new drills with more accompaniment and longer notes.
    a. This is effective for soaking the mind in a sound, which develops nascent auralization.
2) Work towards playing fewer and shorter notes.
    a. This is effective for expanding your nascent auralization capabilities.
3) Sing while playing pitches.
4) Sing before playing pitches.
5) Play only staccato notes.
6) Play notes only intermittently.
7) Sing entire exercise with only a starting note and a final note to check accuracy.
8) To develop harmonic intervals:
    a. Overlap played notes with sung notes.
    b. Simultaneously perform opposite pitches.
    c. Hold the notes and listen to their combination.

Sound Rounds[1]

1) Select a single interval, such as a Major 2nd.
2) Find a low pitch you can sing well to begin.
3) On the first pitch sing either "Maj" or "Min".
    a. Short for "Major" or "Minor" respectively.
    b. It may be helpful to leave off the final consonant from each syllable.
4) Sing "Two" on the second pitch.
5) For instance, if one were practicing Major 2nds:
    a. Beginning on a low F one would sing "Maj".
    b. One would then sing "2" on G.

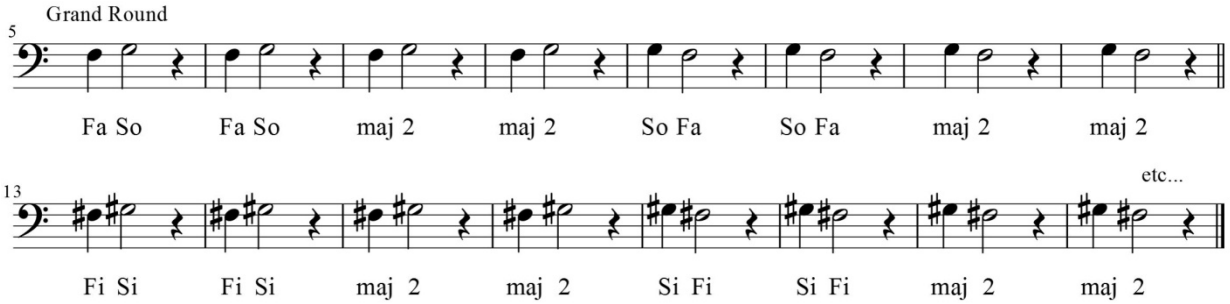
[1] Burge, David Lucas, *The Relative Pitch Ear Training Supercourse*, (Fairfield, IA: American Educational Music Publications, Inc., CDs, 2001).

6) Sing "Maj 2, Maj 2, la la, la la", in this ascending fashion for each of these 4 pairs. In this way the interval is sung 4 times in a row.
7) Then sing the same idea in descending fashion, with the first syllable beginning on the upper pitch.
8) Sing in this manner for each pair of notes as you move chromatically up through the octave.
9) Repeat this process in reverse to descend through the octave.
    a. Select a high pitch you can sing well.
    b. Sing the pattern beginning in descending fashion then ascending.
    c. Move down through the octave.



Grand Rounds[2]

1) The same general process is followed for Grand Rounds as for Sound Rounds, except:
2) Do not sing the syllable "la".
3) Instead sing solfege syllables and the interval.
    a. For instance, "Fa So, Fa So, Maj 2, Maj 2".
4) Use sharped syllables while ascending the octave.
5) Use flatted syllables while descending the octave.



Distinguishing Intervals

Many intervals are easily confused for one another. For instance, major and minor thirds are typically presented together with the intent of developing the ability to distinguish between these functionally similar intervals. When beginning to learn 3rds one may have difficulty singing or recognizing the difference between major and minor thirds with regularity. After some time of dedicated practice one will master the ability to distinguish between these intervals. Although mastering this skill is of great importance, it is important to keep in mind that having the ability to perfectly distinguish between two intervals does not necessarily mean that one is fully aware of the individual character of each interval.

[2] Burge, David Lucas, *The Relative Pitch Ear Training Supercourse*, (Fairfield, IA: American Educational Music Publications, Inc., CDs, 2001).

For instance, when one adds major and minor 6ths into their repertoire, they may find that the thirds begin causing trouble once again. This is the result of 3rds and 6ths being inversions of one another. Practicing minor thirds and major sixths or major thirds and minor sixths in tandem will help immensely in furthering one's mastery of these sounds and can be a great way to initially master 6ths! Here is a listing of interval pairings that may be beneficial to practice together:

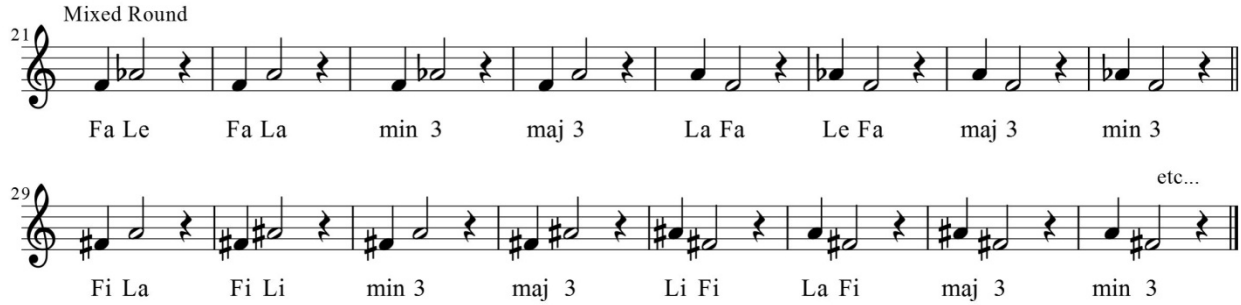
1) Major 3rds/Minor 6ths, Minor 3rds/Major 6ths
2) Major 2nds/Minor 7ths, Minor 2nds/Major 7ths
3) Tritones/Minor 6ths
4) Major 7ths/Minor 9ths, Minor 7ths/Major 9ths

Ways to practice these together:

1) Back to back Grand or Sound Rounds
2) Mixed Rounds
3) Mixed Stacked Rounds

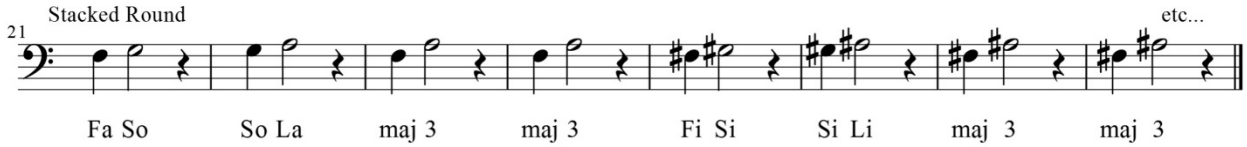
Mixed Rounds

1) Select two different intervals.
2) Chromatically ascend/descend via moving between two intervals while following the procedure for either Sound Rounds or Grand Rounds.
    a. For instance, sing a Major 3rd and Minor 3rd from the same pitch.
    b. Move a half step and repeat.
3) Be sure to sing intervals in different orders in various combinations.



Stacked Rounds

1) Sing the same interval in a stacked fashion while following the procedure for either Sound Rounds or Grand Rounds.
    a. For instance, sing "Fa So, So La, Maj 3, Maj 3"
    b. "La So, So Fa, Maj 3, Maj 3"
    c. This method is especially effective for breaking the tendency to sing a major third and then a minor third, or a perfect fourth and then a perfect fifth.
2) In this way the ear also focuses on the stacked interval, which is especially effective for learning larger intervals.



Mixed Stacked Rounds

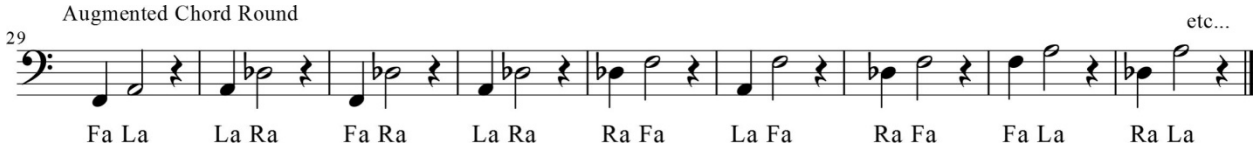
1) As per Stacked Rounds, but select two different intervals.

Chain Rounds

1) Sing continuously stacked intervals beginning at the bottom of your range.
    a. "Fa So, So La, La Ti, Ti Di…" or
    b. "Maj 2, Maj 2, Maj 2, Maj 2…"
2) Sing up stacked intervals until reaching the top of your range.
3) Sing your highest pitch down one or two octaves and continue singing the pattern up.
4) Repeat this process until having sung every pitch at least once.
5) Repeat this process in reverse while descending.

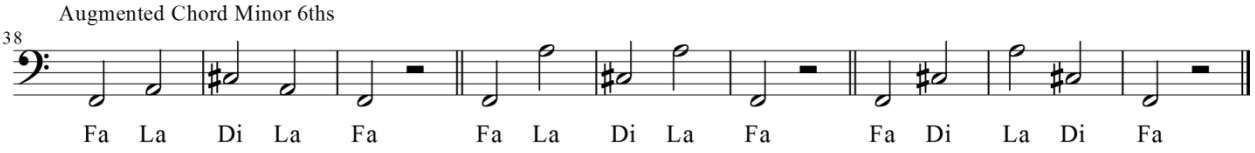
Augmented Chord Rounds 1

1) Sing chained Major 3^{rds} through two octaves.
2) Remember to skip back down two pitches to sing the stacked interval.
3) Do this moving up and down the chord.
4) Select whatever chord spelling you like.
5) Be very focused when singing Diminished 4^{ths} and Augmented 3^{rds}.
6) Remember, there are only four possible sound combinations, although there are many more possible spellings.



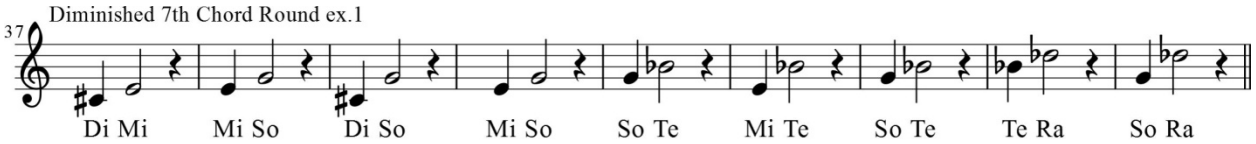
Augmented Chord Minor 6^{ths}

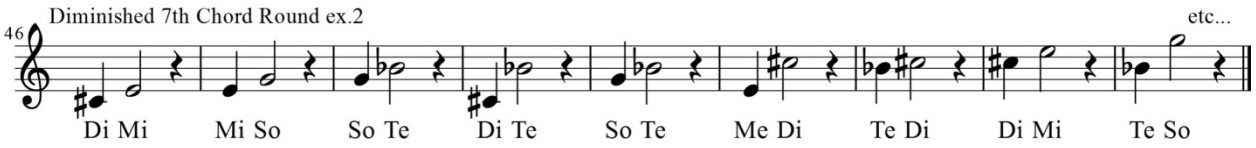
1) This round is designed to strengthen Minor 6^{ths}.
2) Sing an Augmented Triad in 3^{rds} from Root to ♯5th.
    a. R-3rd-♯5th-3rd-R
3) Sing the Augmented Triad with the 3rd an octave higher.
    a. R-10th-♯5th -10th-R
4) Sing the Augmented Triad in Minor 6^{ths}.
    a. R-♯5-10th-♯5-R



Diminished 7th Chord Rounds

1) Sing chained Major 3^{rds} through two octaves.
2) Remember to skip back down two pitches to sing the stacked interval.
    a. You may instead sing down three pitches as well.
3) Do this moving up and down the chord.
4) Select whatever chord spelling you like.
5) Be very focused when singing Diminished 7^{ths} and Augmented 2^{nds}.
6) Remember, there are only three possible sound combinations, although there are many more possible spellings.





Chromatic Pedal Rounds:

1) Select a pedal tone at the bottom or top of your range.
2) Sing this tone then a Minor 2nd above or below.
3) Sing this tone then a Major 2nd above or below.
4) Continue this process to the extent of your range.
5) Return back up/down.
6) You may play the pedal tone or the desired tone on your instrument as you play.
7) Variation: Sing the pedal tone both below and above the moving tone.
8) When singing solfege, remember to include enharmonic equivalents.
9) Singing scale degrees is very effective in this drill.

Mirrored Pedal Rounds:

1) Select a pitch in the middle of your range.
2) Sing up ½ step and back.
3) Sing down ½ step and back.
4) Sing up 1 step and back.
5) Sing down 1 step and back.
6) Repeat process until reaching 1 octave above and below pedal tone (or as far as possible).
7) Variation: Select the same pitch above and below middle tone.
    a. This results in singing interval inversions,
    b. Which helps place scale degrees both above and below the tonic.

Random Pedal Rounds:

1) As per Chromatic or Mirrored Pedal Rounds, but select random intervals.

Mastering Key Signatures

There are 15 key signatures that are legitimately used in music. Each one represents a major and a minor key. Each key signature also represents seven different diatonic modes, with Ionian (major) and Aeolian (minor) being two of them. Becoming fluent in wielding this information is of the utmost importance. Developing an innate sense of each key provides a musician with a foundation of knowledge necessary to develop fluency in reading, memorizing, and improvising. Fortunately, one need only begin by memorizing 7 consecutive major key signatures. With this knowledge and two simple rules any key signature can be quickly calculated.

How do I learn 7 key signatures?

The best keys for performance on the guitar are those of the 7 natural letters: F C G D A E B. Therefore, if you are unfamiliar with key signatures, begin with these. Notice that these keys are not listed in alphabetical order. They are instead listed in order of their 5th relationships, otherwise known as the Circle of 5^{ths}. Everything about key signatures is dependent upon knowledge of the Circle of 5^{ths}. You must memorize this pattern.

The first key signature everyone needs to learn is C major. Its key signature is not written, as it consists of 7 natural notes. Then learn F and G. F is the only flat key in this set. As the first of the flat keys, it has only 1 flat. G is the first sharp key, therefore it has only 1 sharp. The first sharp in every sharp key signature also happens to be F♯. This is important to consider, as F is the first key in our set order. Every new sharp that is added to the subsequent keys will follow this order (see "Order of flats and sharps").

The key of D has 2 sharps: F♯ and C♯. A has 3 sharps: F♯, C♯, and G♯. Notice how the pattern of sharps is following our key set order of F C G D A E B? There you go. That is all there is to it.

Order of flats and sharps

When adding sharps or flats to a key signature one must be familiar with the Circle of 5^{ths}. Here are the 7 natural notes of the musical alphabet ordered by descending 5th: B E A D G C F. This is the order in which one adds flats to a key signature. Sharps are added in order of ascending 5^{ths}: F C G D A E B. Notice that these are exactly the same collection of letters in reverse order.

The Rule of 7

The key signatures here are presented in such a manner as to illuminate the relationships each shares with their same letter counterparts. Take note that key signatures are not typically written with naturals, as they are instead assumed. Writing and visualizing them, however, makes performing key signature mental gymnastics more manageable. Look at the column of major C key signatures. C♭ major has 7 flats, C major has 7 naturals, and C♯ major has 7 sharps. When viewed this way we see clearly that C major does not have "no key signature". Rather, by conceptualizing C major in this way, the Rule of 7 is made abundantly clear. To calculate an unfamiliar key signature, simply call to mind the key signature of that letter and type you do know, then sharpen or flatten all 7 notes accordingly. For instance, to change F major to F♯ major, simply sharpen all 7 notes. F major consists of 1 flat and 6 naturals. F♯ major must therefore be comprised of 1 natural and 6 sharps.

Rule in the Negative

Look closely at the ordering of naturals in both the flat and sharp key signatures. You may notice that there is something eerily familiar about them. Compare the naturals in the flat key signatures to the sharps in the sharp key signatures, then compare the naturals in the sharp key signatures to the flats in the flat key signatures. You are now fully aware of key signature relationships in the negative.

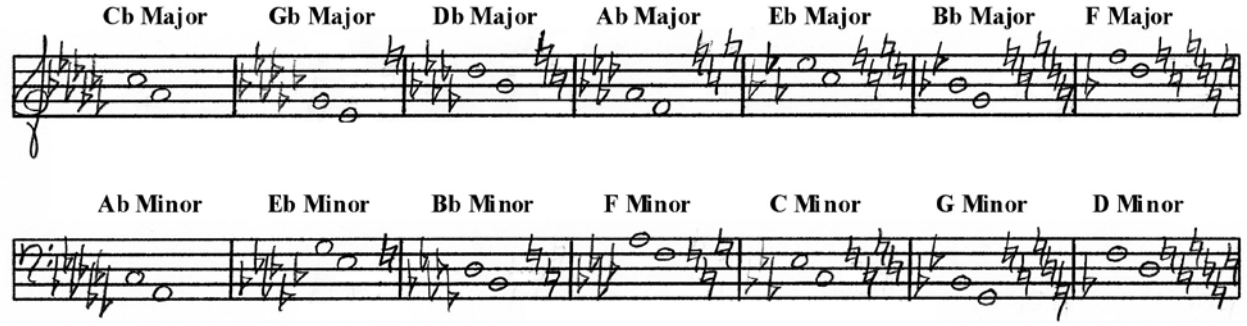
Making use of this relationship between the key signatures is one that can become as easy as clicking the negative button in Adobe Photoshop. For example, to convert the key of A major to A♭ major, one need only imagine that the 4 naturals of A major are actually flats, and there you have the 4 flats of A♭ major. In essence, conceptualizing key signatures in the negative is exactly the same as the Rule of 7, but this process cuts out the extraneous step of altering the 3 sharps of A major to the 3 naturals of A♭ major.

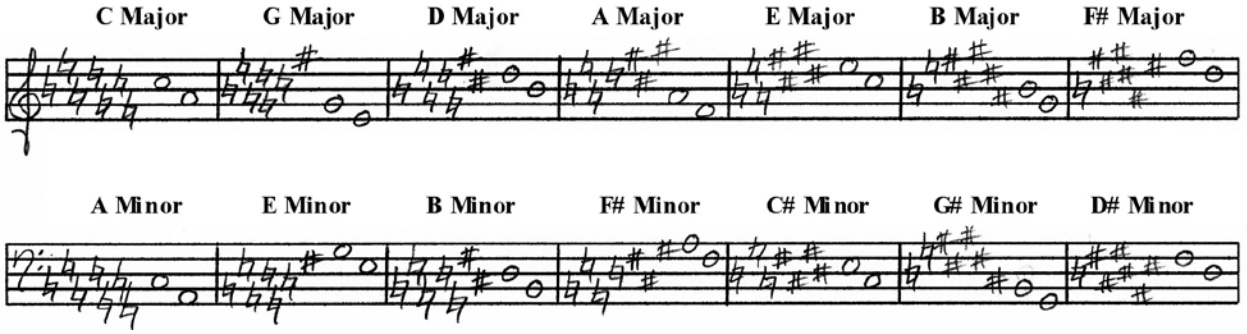
Two Rules of 3

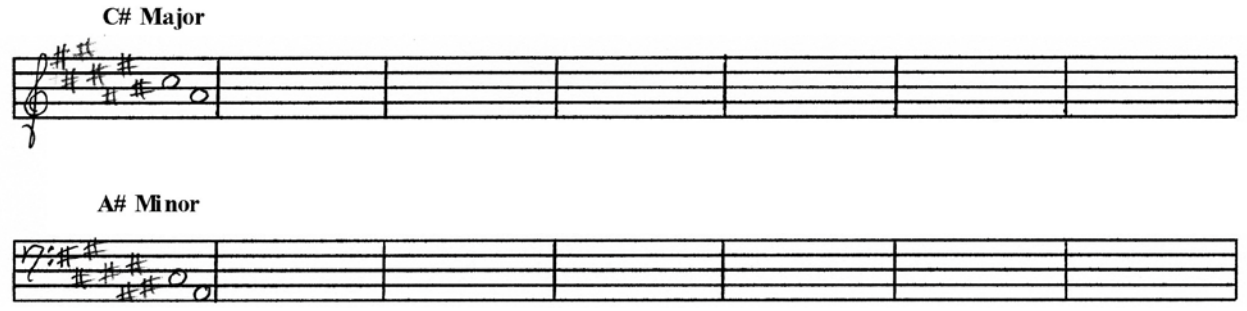
Parallel Rule of 3: Calculating a parallel minor key signature from a major is done by flatting 3 of its notes, while calculating a parallel major key signature from a minor is done by sharping three of its notes. Of course, these cannot be random notes. In a flat key one either adds the next 3 flats or removes the last 3 flats. In a sharp key one either adds the next 3 sharps or removes the last 3 sharps. For example, D major has 2 sharps. To turn it into D minor, flatten the 2 sharps to 2 naturals, then add 1 flat to the key signature.

Relative Rule of 3: D minor shares the same key signature with F major. This relative key relationship can also be used with a different Rule of 3. Notice that the notes D and F are a minor 3rd apart. To find the relative minor of a major key, simply find the note that is a minor 3rd below tonic. Use the reverse process to determine the relative major of a minor key signature.

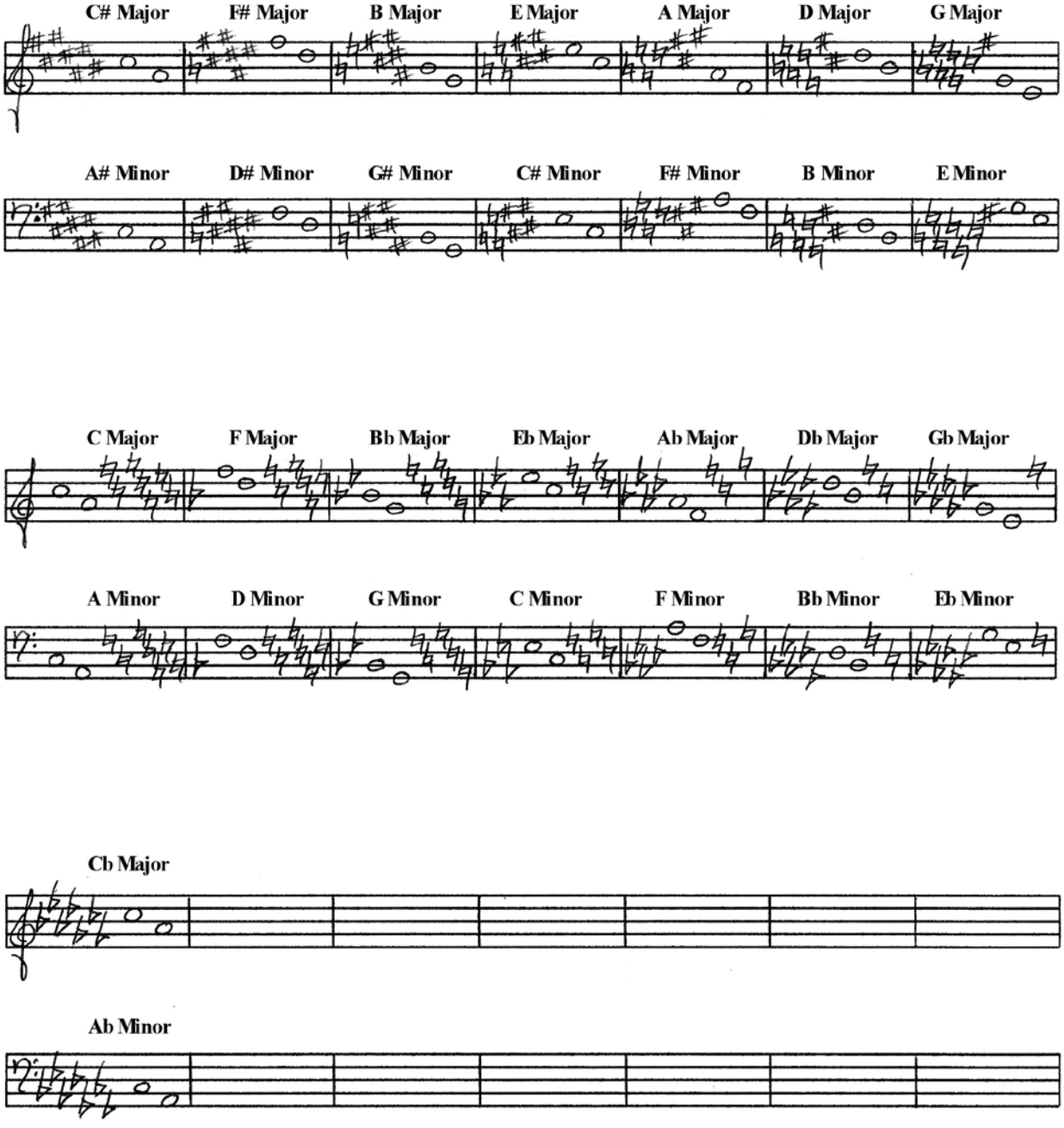
Key Signatures: Flat Keys to Sharps







Key Signatures: Sharp Keys to Flats



Mastery Learning

Developmental Aspects of Relative Pitch

These five levels of ability are largely sequential in development. It is best to focus on mastering these abilities in order.

1) The ability to sing correct tones when heard
2) The ability to hear tones in the mind
3) The ability to sing tones heard in the mind
4) The ability to remember/recall tones heard
5) The ability to hold multiple tones in the mind for comparison

Listening Effortlessly[1]

1) Do not judge your performance while ear training
    - Being concerned with outcomes shifts our focus from mastery to getting correct answers, which impedes learning. Remember, Burge's tests are not graded! Simply listen again and again in order to culture your ears.
2) Effortlessly means without straining
    - Straining is wasted effort. It's kind of like talking to the tv; it will make you *feel* as though you are having an impact and instead leaves you worked up and tired. Instead, focus on a single aspect of the drill and feel good about any progress you make.
3) We care about improving, not getting answers right
    - This is mastery learning. Every step gained is one that you will never lose. Stay confident in the fact that you are getting stronger all the time.
    - Passing Burge's levels means little if they are not mastered. Relative pitch builds upon itself. The stronger its foundations, the more easily one progresses. More advanced drills are very difficult without secure basics but come naturally with them.
    - Be sure, when practicing with Burge's drills, to stop and re-listen to any mistakes in order to *hear* what is correct. Again, we do not care about being wrong; we simply want to be able to hear what really is. This is how ears become cultured.
    - In order to get us to practice better, many of our music teachers give us this lesson, "If you cannot play it slowly, then you cannot play it fast." The same can be said of ear training. If you cannot hear an interval *slowly* and know that you hear it properly, then you cannot hear it "at a glance", so to speak. One must be able to break these sounds apart in one's mind before being able to recognize them instantaneously.
4) Do not worry
    - You are improving with every bit of effort you put in. Ear training is a process of enculturation, and culturing requires immersion over time.
    - You will be struck by numerous moments of clarity in a variety of forms. These wonderful moments may be hard fought for, especially in the beginning, but they will come more readily as you progress.

[1] Burge, David Lucas, *The Relative Pitch Ear Training Supercourse*, (Fairfield, IA: American Educational Music Publications, Inc., CDs, 2001). Listening effortlessly is a method of learning discussed and developed by David Burge throughout his training courses.

- Think of ear training like climbing a mountain. There is a lot of searching for paths and purchase, the progress is largely hard earned and slow, but every bit climbed puts you closer to the top.

5) Enjoy
    - Being aware of your own ear training development is an empowering and freeing experience.
    - The ability to hear something and know you understand it without recourse is incredibly gratifying.

Practicing Riffs

Practicing Riffs

1) Begin practicing each new riff through the circle of 5^{ths}.
2) Practice each set of riffs individually before combining them in a scale cycle.
3) Master the circle of 5^{ths} on each pair of strings.
4) Master the scale cycle on each pair of strings.
5) Visualize each riff before playing.
    a. Know where the notes are; do not guess and check.
6) Always be auralizing (ABA) or sing.

Singing Riffs

It is only through singing while playing that the mind, body, and ears fully engage with each other. You will master material quicker and more thoroughly when practicing in this manner, although it may feel very slow and difficult. Practice that requires this much effort guarantees that a high degree of learning is taking place. Knowing how to play the guitar is one thing, knowing what to play is another.

1) Sing and play through the cycle of main notes you will be practicing before playing the riff.
2) Sing the main notes while you play the riff.
3) Sing each main note prior to playing the riff.
4) Sing the riff while you play.
5) Sing the riff each time before playing.
6) Sing the riff through the entire cycle without playing.

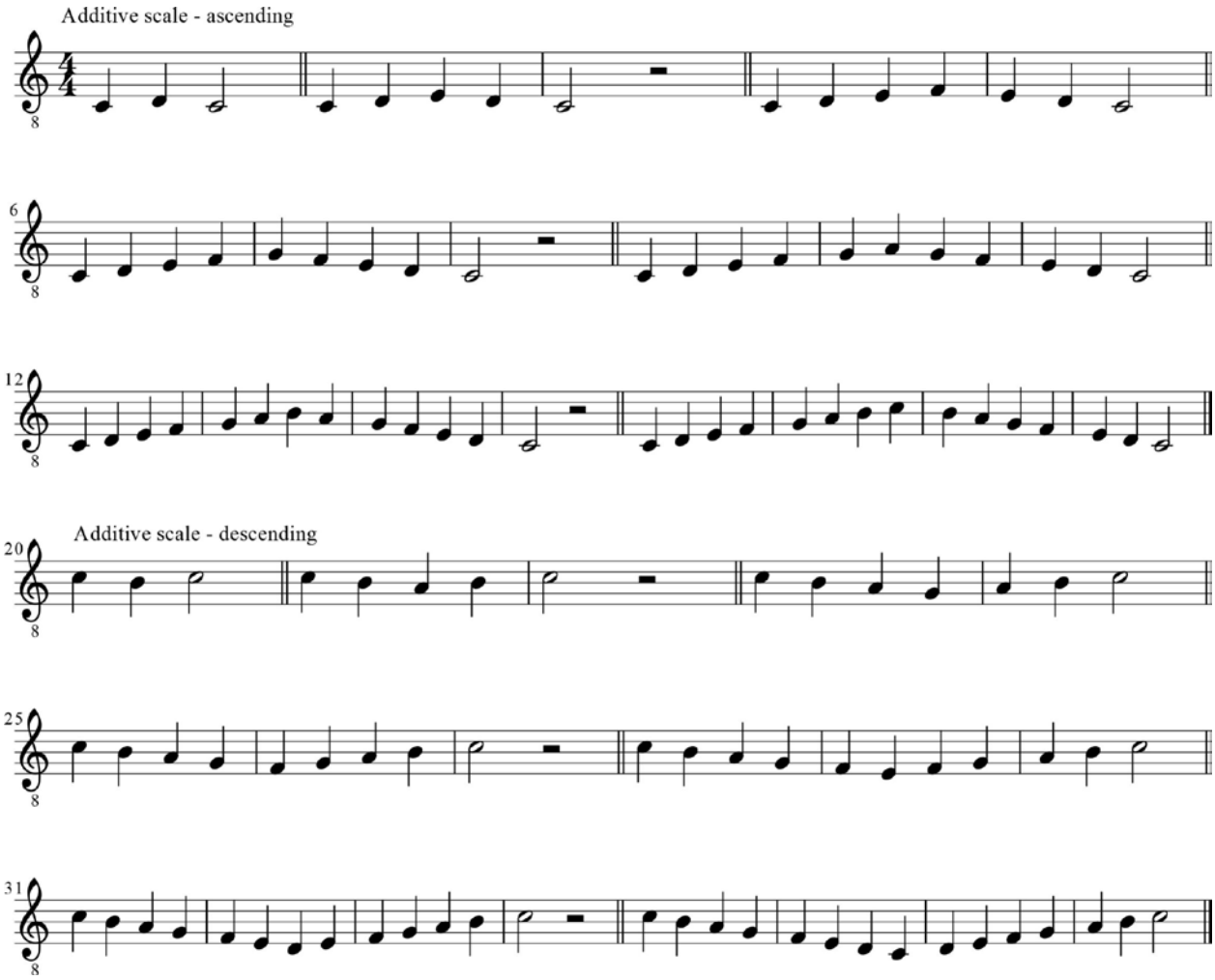
Playing with Riffs

1) Alter the rhythm or tempo.
2) Move the riff to a different beat.
3) Repeat all of the riff or portions of it.
4) Combine riffs.
5) Add notes to a riff.
6) Practice them with a chord progression.
    a. Now you are soloing!
7) Move the riff to a different scale degree.
    a. Visualize the roots of the patterns, although you are enclosing a different note.
    b. It may be helpful to record yourself playing through the circle of 5^{ths}, the scale cycle, or a chord progression in order to hear how this alters the riff's sound.

Singing Scales

Additive Scales

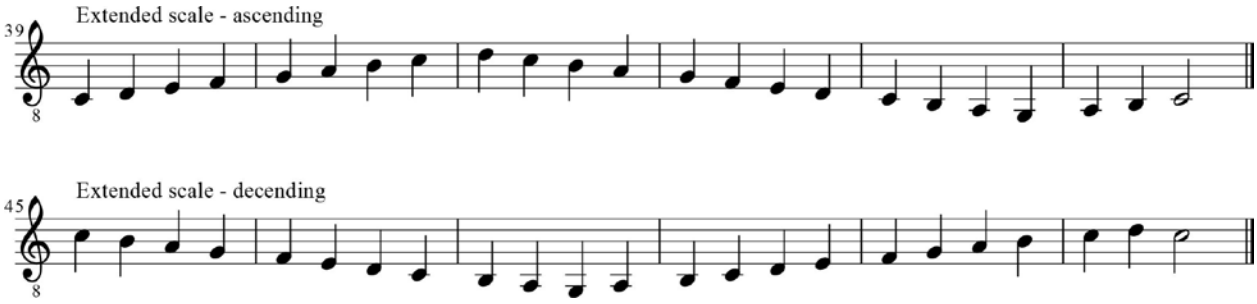
Ascending additive scales are designed to help students learn a new scale. They are performed by beginning with the first two notes of a scale, singing them up and down, and then adding the third note. This process continues until the entire scale is sung. Descending scales work in the same manner but opposite direction.[1]



[1] Krueger, Carol J, *Progressive Sight Singing*, 2nd ed., (New York: Oxford University Press, 2011), 181.

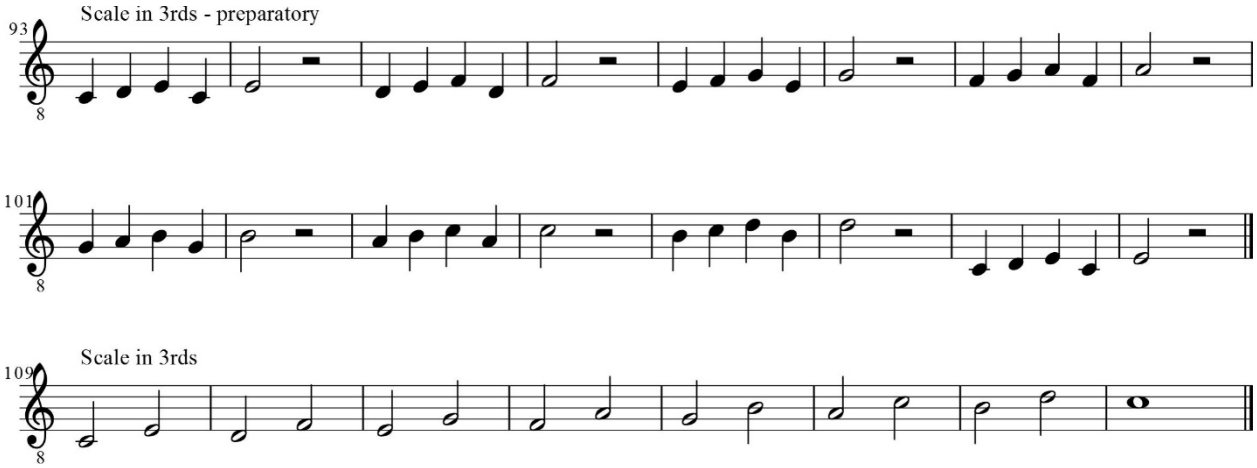
Extended Scales

Extended scales are intended to help students master a single scale. They ascend a 2nd above the scale and descend a 4th below the scale.[2]



Interval Scales

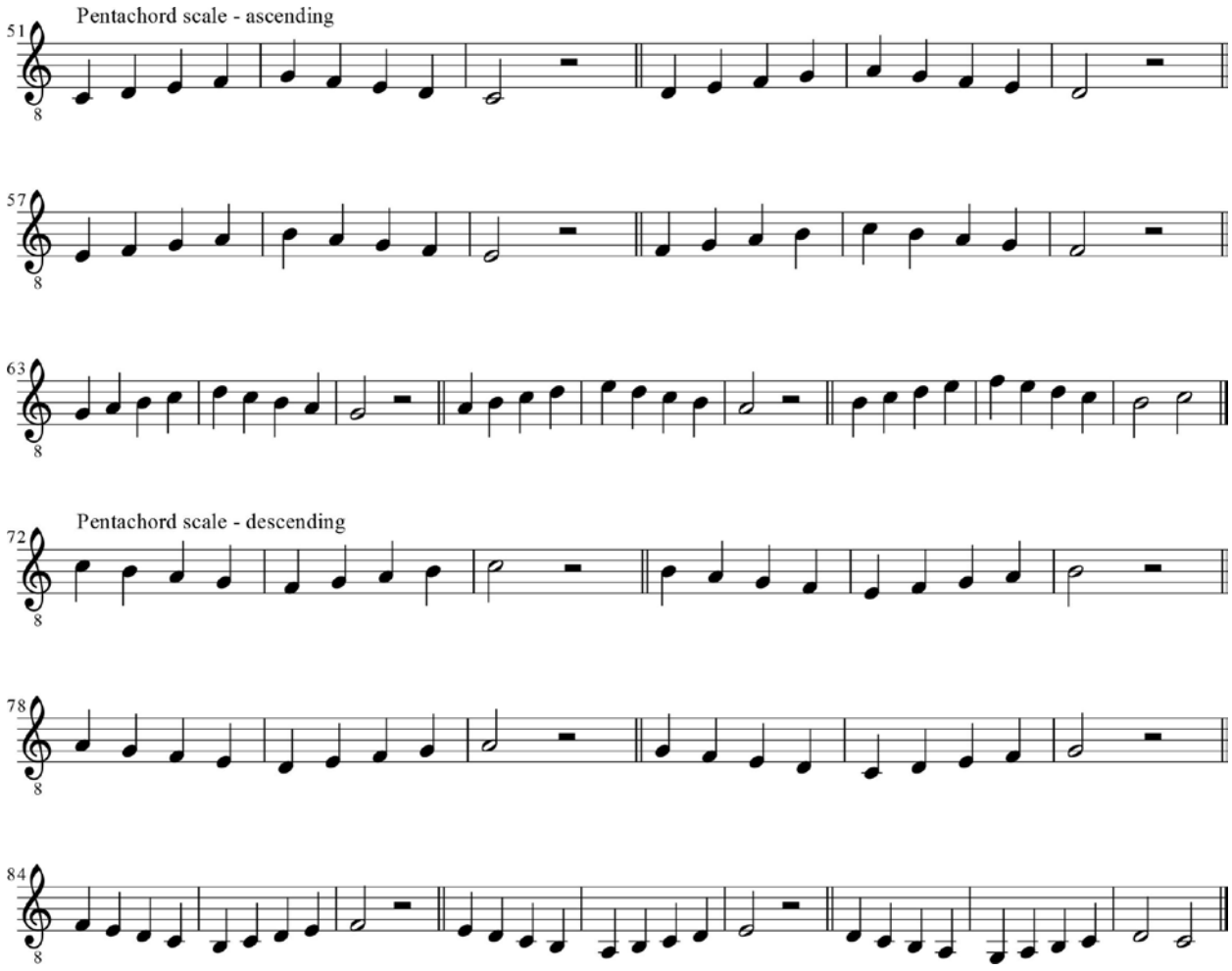
Interval scales are designed to aid in learning new intervals and in mastering intervals within a key. Begin with the preparatory exercise to gain a footing with the sound of the interval, then practice the pure scale pattern.



[2] Krueger, Carol J, *Progressive Sight Singing*, 2nd ed., (New York: Oxford University Press, 2011), 181.

Pentachord Scales

Pentachord scales are designed to aid in developing a feel for each scale degree its associated mode. They are sung in five note groupings beginning on sequential scale degrees.[3]



[3] Krueger, Carol J, *Progressive Sight Singing*, 2nd ed., (New York: Oxford University Press, 2011), 182.

Solfege and Scale Degrees

Solfege Syllables:

Dai			**Fai**	**Sai**		
C*x*			F*x*	G*x*		
Di	**Ri**	**Mai**	**Fi**	**Si**	**Li**	**Tai**
C♯	D♯	E♯	F♯	G♯	A♯	B♯
Do	**Re**	**Mi**	**Fa**	**So**	**La**	**Ti**
C	D	E	F	G	A	B
De	**Ra**	**Me**	**Fe**	**Se**	**Le**	**Te**
C♭	D♭	E♭	F♭	G♭	A♭	B♭
		Ma			**Lo**	**Ta**
		E♭♭			A♭♭	B♭♭

Scale Degree Syllables:

This is my preferred system, as it retains the first consonant of each number. In this way each syllable is tied directly to the essence of the number in English.

Scale degrees ♯4 and ♯5 as well as ♭6 and ♭7 unavoidably share the same initial consonant and vowel sounds, with only their final consonant to differentiate them. Be careful to keep this fact in mind when singing.

Ween	**Tea**	**Thrai**	**Fear**	**Feev**	**Seek**	**Sive**
♯1	**♯2**	**♯3**	**♯4**	**♯5**	**♯6**	**♯7**
One	**Two**	**Three**	**Four**	**Five**	**Sic**	**Sev**
1	**2**	**3**	**4**	**5**	**6**	**7**
Waen	**Tae**	**Thrae**	**Fair**	**Fave**	**Sake**	**Save**
♭1	**♭2**	**♭3**	**♭4**	**♭5**	**♭6**	**♭7**

These scale degree syllables are commonly used as well. Feel free to use this set if you prefer.

Shun	**Shoe**	**Shree**	**Shore**	**Shive**	**Shic**	**Shev**
♯1	**♯2**	**♯3**	**♯4**	**♯5**	**♯6**	**♯7**
One	**Two**	**Three**	**Four**	**Five**	**Sic**	**Sev**
1	**2**	**3**	**4**	**5**	**6**	**7**
Flun	**Floo**	**Flee**	**Floor**	**Flive**	**Flic**	**Flev**
♭1	**♭2**	**♭3**	**♭4**	**♭5**	**♭6**	**♭7**

Spelling Practice

For each new interval, write out every combination of intervals, ascending and descending, for the pitches listed on the solfege sheet. Be sure to include the extreme starting pitches such as B𝄫. For example, a major second above B𝄫 is C♭, and a major second below B𝄫 is A𝄫. There is no need to repeat this process for additional notes such as A𝄫.

Use the Burge spelling tests to gauge your progress. If you can complete his tests perfectly, you will easily pass the class tests. However, as simply passing tests is not the goal of this class, I recommend you practice in the following manner.

Burge's spelling tests[1]

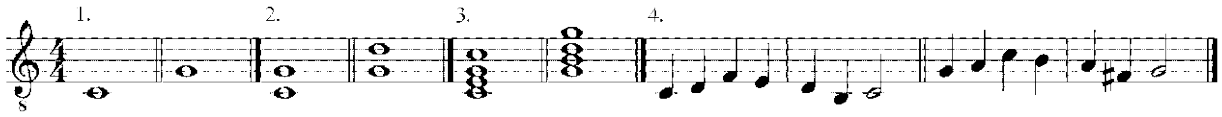
1) Repeat the spelling tests three times in a row each session.
2) Do this as for as many sessions as is necessary until the interval spellings are thoroughly learned.
3) When you can complete the spelling test with barely a thought on the first pass of a session, the interval is mastered.

[1] Burge, David Lucas, *The Relative Pitch Ear Training Supercourse*, (Fairfield, IA: American Educational Music Publications, Inc., CDs, 2001).

Transposing

In music, transposition is the process of raising or lowering a series of notes by a consistent interval. These notes could comprise an interval, chord, melody, chord progression, or an entire piece of music.

Example 1: The note C transposed up by a 5th to G
Example 2: The interval C5 transposed up by a 5th to G5
Example 3: The chord C major transposed up by a 5th to G major
Example 4: A two measure melodic fragment in C transposed up by a 5th to G



In the fourth example an F♯ was used in place of an F♮, as the interval of transposition was not just any 5th, but a Perfect 5th specifically. This type of transposition is termed *chromatic transposition*. Were the F♮ to have been used instead, then this example would have been what is termed a *scalar transposition*. A scalar transposition is an instance where the material is transposed from one scale into another. In this example, the material would have been transposed from C Ionian to G Mixolydian.

The technique of transposition is used often and in many ways by musicians. In the world of popular music and jazz, musicians must be able to play the same songs in different keys depending upon the preferences of the band they are performing with and/or the range of their singer. Jazz musicians are also very fond of quoting various popular melodies in their solos, which more often than not requires transposing the melodies from their original keys into the key of their solo.

In order to achieve a level of mastery with this skill one must be fluent in recognizing and understanding the harmonies of a song in terms of their chord degrees. Thinking of music in these terms equates all keys to a common denominator, so to speak. In this way, progressions in even the most disparate of keys can be readily compared or transposed to. For instance, if one wished to transpose the progression A – F♯m – D – E – A to the key of C#, it would be best to begin by understanding the given progression in terms of its chord degrees. These are: I – vi – IV – V – I. Then one need only apply this framework to the key of C♯. If I is C♯, then the transposed progression becomes C♯ – A♯m – F♯ – G♯ – C♯. You can now see how much faster it would be to make this transposition if one immediately understood the given progression in terms of its chord degrees. Making this knowledge innate is how musicians are able to transpose music on the spot.

The guitar has a significant advantage in terms of transposing music by nature of its design. Any moveable pattern one learns on the guitar is immediately transposable to any other key. All of the notes change within a pattern as it is moved up and down the neck, but the scale degrees are fixed within the pattern. Therefore, in learning how to play the guitar in terms of moveable shapes and patterns, one is actually learning how to transpose at the same time! The secret to making use of this information is to memorize the scale degrees of the notes one is performing within each of these patterns. The patterns included in this course are presented in such a manner as to ensure efficient and practical assimilation.

Working with Burge

Singing Tests as Practice Material [1]

1) You may use these for training as well as testing.
2) These allow you to practice without an instrument.

Singing Tests – Learning New Intervals

First sessions

1) Sing and hold initial pitch.
2) Wait for second pitch.
3) Sing and hold second pitch.
4) Repeat singing of first and second pitches.

Second sessions

1) Sing initial pitch.
2) Attempt to imagine second pitch.
3) Wait for second pitch.
4) Sing second pitch.
5) Repeat singing of first and second pitches.

Third sessions

1) Sing initial pitch.
2) Imagine second pitch.
3) Attempt to sing second pitch before it is given.
4) Match sung pitch to second given pitch.
5) Repeat singing of first and second pitches.

Singing Tests – Drill Inversions

1) These drills are used to learn new, large intervals, which are inversions of previously mastered intervals such as Major 3^{rds}/Minor 6^{ths}, Minor 3^{rds}/Major 6^{ths}, Major 2^{nds}/Minor 7^{ths}, and Minor 2^{nds}/Major 7^{ths}.
2) It can be helpful to sing the inversion of an interval after singing the desired interval to cement what it is by singing its opposite.
3) This technique is particularly helpful in differentiating between 4^{ths} and 5^{ths} as well as helping those who have difficulties with 6^{ths}.
4) 6^{ths} offer a unique difficulty in that first inversion chords are implied by 6^{ths}. Major 6^{ths} imply minor chords, while Minor 6^{ths} imply major chords. By singing their inversions, the 3rd below the 6th, we are able to "right" the intervallic relationship with the chord quality. With a little practice, hearing these "upside-down" intervals becomes natural. If one has developed the ability to hear chord inversions by this point, then use of this technique should come quite naturally. It is simply a matter of hearing each 6th as if it were a chord in first inversion.

Inversion Drill A: Example Major 3rd/Minor 6th

1) Return to the Major 3rd singing test.
2) Sing the starting pitch.
    a. Work towards not singing this pitch.
3) Sing the Major 3rd requested.

[1] Burge, David Lucas, *The Relative Pitch Ear Training Supercourse*, (Fairfield, IA: American Educational Music Publications, Inc., CDs, 2001).

    a. Work towards auralizing this interval.
4) Re-sing the starting pitch.
5) Sing an octave from the starting pitch in the direction of the Major 3rd.
6) Sing the Minor 6th created on the opposite side of the given pitch.
7) Re-sing the Minor 6th and listen for its unique quality.

Inversion Drill B: Example Major 3rd/Minor 6th
1) Return to the Major 3rd singing test.
2) Sing or auralize the initial pitch.
3) Sing or auralize the mastered interval.
4) Sing or auralize an octave from this Major 3rd to the opposite side of the starting pitch.
    a. Attempt to auralize this octave simultaneously with the Major 3rd.
    b. In effect, you are auralizing the Minor 6th when you can manage this feat.
5) Sing the Minor 6th created on the opposite side of the starting pitch.
6) Re-sing the Minor 6th and listen for its unique quality.

Inversion Drill C: Example Major 3rd/Minor 6th
1) Visit the Minor 6th singing test.
2) Sing or auralize the starting pitch.
3) Sing an octave in the direction of the answer pitch.
4) Sing or auralize a Major 3rd back towards the starting pitch.
5) Sing down a Minor 6th to the starting pitch.
6) Re-sing the Minor 6th and listen for the quality of Minor 6th.

Inversion Drill D: Example Major 3rd/Minor 6th
1) Visit the Minor 6th singing test.
2) Sing or auralize the starting pitch.
3) Sing or auralize a Major 3rd in the opposite direction of the answer pitch.
4) Auralize an octave from this Major 3rd to the opposite side of the answer pitch.
    a. Attempt to auralize this octave simultaneously with the Major 3rd.
    b. In effect, you are auralizing the Minor 6th when you can manage this feat.
5) Sing the Minor 6th created on the opposite side of the starting pitch.
6) Re-sing the Minor 6th and listen for its unique quality.

Inversion Drill E: Example Major 3rd/Minor 6th
1) Visit either the Major 3rd or Minor 6th drill.
2) Simultaneously auralize the Major 3rd/Minor 6th pitches from the starting pitch.
    a. Eventually, attempt to auralize only the Minor 6th.
3) Sing only the Minor 6th.
4) Re-sing the Minor 6th and listen for the quality of Minor 6th.

Major and Minor Arpeggio Drills [2]
Inversions for 6ths
1) Listen to the given tone.
2) Sing up the arpeggio.
3) Sing down an octave from the 5th to the 5th below the root.
4) Sing a 6th up to the 3rd.
5) While listening to the arpeggio answer:

[2] Burge, David Lucas, *The Relative Pitch Ear Training Supercourse*, (Fairfield, IA: American Educational Music Publications, Inc., CDs, 2001).

a. Sing down to the R.
b. Sing down to the 5th.
c. Sing up to the 3rd.

6) This drilling process will solidify your abilities to:
    a. Auralize and recognize chord tones.
    b. Auralize and recognize 3rds, 4ths, 6ths, and 8ves within a context.

Interval Lightning Round Focus Techniques: [3]

1) Sing each pitch as it is given.
2) Sing the first pitch and hold it through the second pitch.
3) Auralize each pitch as it is given.
4) Auralize the first pitch while singing the second.
5) Auralize each pitch after the example ends.
6) Attempt to hold each pitch in your mind simultaneously. This will allow you to conceive of each pitch separately yet simultaneously.
7) Cease listening to the pitches individually. Instead, listen for the quality of the interval as a unit.

Arpeggio/Chord Lightning Rounds – Determining Inversions [4]

Chord Listening Drill A

1) Listen for the top pitch.
2) Sing it.
3) Lock it in your awareness.
4) Reasoning:
    a. This is typically the easiest pitch to locate.
    b. Allows one to focus on remaining pitches.
5) Listen for the bottom pitch.
6) Sing it.
7) Lock it in your awareness.
8) Reasoning:
    a. It is typically the second easiest pitch to locate.
    b. Allows one to focus on remaining pitches.
    c. This is the pitch necessary for determining inversions.
    d. Allows one to hear the remaining middle pitch(es).
9) Listen for the middle pitch
10) Sing it.
11) Lock it in your awareness.
12) Reasoning:
    a. It is essential to be able to hear all pitches in a chord in order to decipher it.

Chord Listening Drill B

1) Listen to the entire arpeggio.
2) Sing up and down once (down and up if given down).
3) Sing back up to the root.
4) Listen to the root in relation to the chord.
5) Reasoning:
    a. To gain an innate feeling for the root as the heart of the chord.

[3] Burge, David Lucas, *The Relative Pitch Ear Training Supercourse*, (Fairfield, IA: American Educational Music Publications, Inc., CDs, 2001).
[4] Burge, David Lucas, *The Relative Pitch Ear Training Supercourse*, (Fairfield, IA: American Educational Music Publications, Inc., CDs, 2001).

    b. This develops an instant recognition of the root.
6) Repeat this exercise with each chord tone taking its turn as the focus.
7) Work towards initially singing the arpeggio in only one direction.
8) Work towards initially only auralizing the arpeggio.
9) Work towards immediately singing the desired chord tone with an instantaneous auralization.

Chord Listening Drill C

1) Sing and hold the bass.
2) Listen to the bass in relation to the chord.
3) Attempt to feel which chord tone it is.
4) Reasoning:
    a. Develops a sense of bass location.
    b. Develops a sense for chord tone qualities.
    c. Develops a sense of inversion.
5) Skip back up to the root (or remain on pitch if the root is the bass).
6) Listen to the root in relation to the chord.
7) Reasoning:
    a. Confirms the inversion.
8) Work towards auralizing the bass and root simultaneously.
9) Work towards feeling which chord tone is in the bass without finding the root.
10) Reasoning:
    a. Must wean self from necessity of singing.
    b. Develops sense of inversion by focusing on the bass alone within the harmony as a whole.
    c. The need to auralize the root will fade, thus speeding inversion recognition.

Chord Listening Drill D

1) Sing and hold the bass.
2) Listen for the second chord tone.
3) Sing the second chord tone.
4) Attempt to feel which chord tone it is.
5) Listen for the interval between the bass and second tone.
6) Work towards honing in on the second chord tone without reference.
7) Reasoning:
    a. Inner chord tones are often the most difficult to hear, even when one is the root.
    b. It is imperative to develop the ability to instantaneously "unlock" all of the tones of a chord in order to be able to be able to recall a specific chord in the mind.

Chord Inversion Confusion: [5]

1) Why am I having trouble hearing/recognizing the bass?
    a. The ear is accustomed to focusing on the root as home base.
    b. Overtones are too prominent and/or the bass is too quiet. The speakers may be incapable of reproducing the bass range or the equalizer is offset.
2) Why am I confusing major and minor chords?
    a. When chords are heard in close proximity to one another, it is easy for the mind to retain aspects of the previous chord. This phenomenon occurs more readily as one develops their ability to auralize.

[5] Burge, David Lucas, *The Relative Pitch Ear Training Supercourse*, (Fairfield, IA: American Educational Music Publications, Inc., CDs, 2001).

b. For instance, hearing iii and I^6 in succession can cause one to mistake the I^6 for a minor chord. As iii is minor and shares the same bass and minor 3rd above the bass with I^6, focusing on the bass here may lead to confusion.
c. In this way, although developing the ability to hear the bass as bass accurately is an improvement in developing relative pitch, it may result in this new problem.
d. Gaining control of this problem requires the ability to quickly wipe clean one's aural memory and refocus for the next harmony.

Scale Degree Drills[6]

SD Drills with the Guitar

1) Select a scale pattern and play along with the exercises on the guitar.
    a. It may be helpful to transpose the notes to fit within one octave.
2) Reasoning:
    a. Aids in visualizing the scale without the instrument.
    b. Creates and solidifies connections between the ear and the instrument.

SD Drill Singing Options

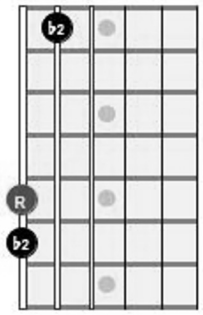
1) Sing the tonic with each new pitch.
2) Repeat the previous pitch before each new one.
3) Sing the new pitch, the previous pitch, and the new pitch again.
4) Sing just the new pitch and the previous pitch.
    a. This requires a high degree of auralization to keep things straight.
5) Sing as many previous pitches as possible.

SD Drill Listening Options

1) Focus on the SD interval with the tonic.
    a. This is the essential quality of the SD.
2) Focus on successive intervals.
    a. This is called intervallic listening.
3) Focus on SD qualities and successive intervals simultaneously.
4) Auralize as many previous pitches as possible in succession.

[6] Burge, David Lucas, *The Relative Pitch Ear Training Supercourse*, (Fairfield, IA: American Educational Music Publications, Inc., CDs, 2001).

Minor 2nd above S6



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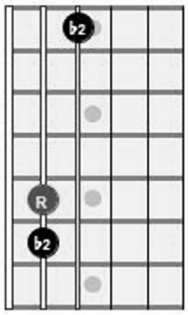

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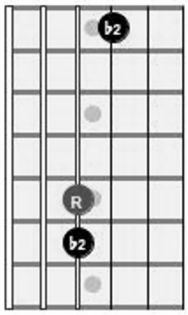

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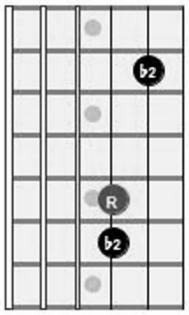

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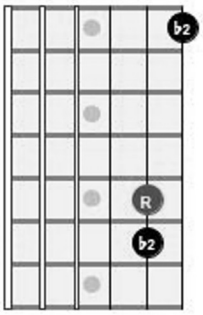

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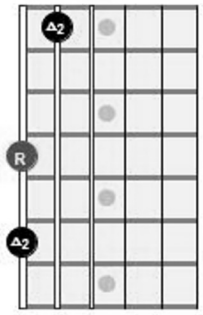

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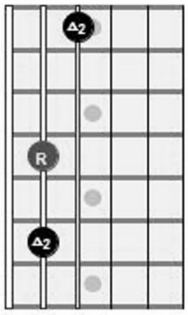

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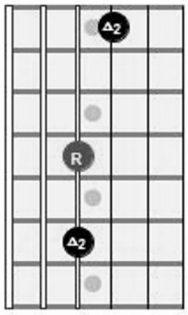

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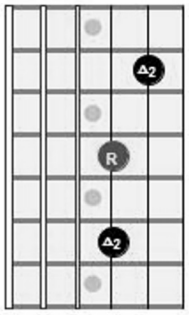

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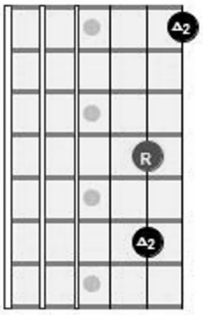

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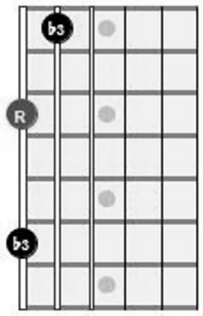

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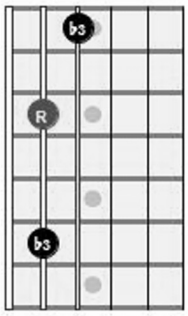

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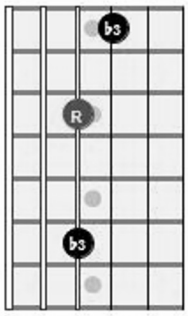

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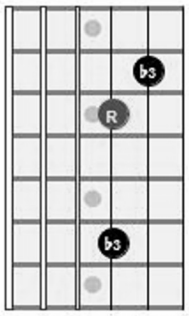

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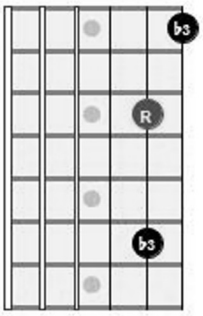

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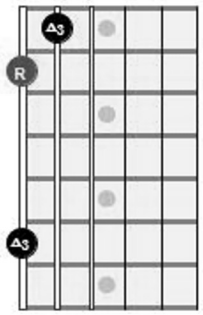

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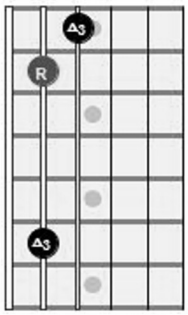

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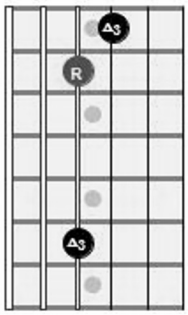

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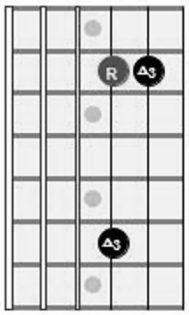

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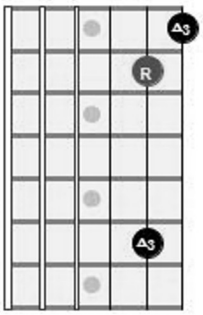

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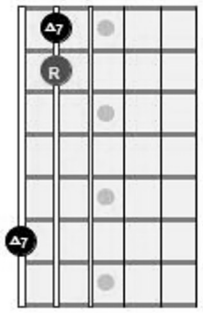

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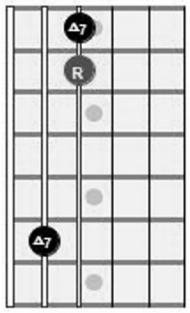

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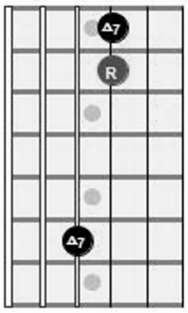

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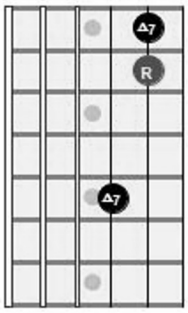

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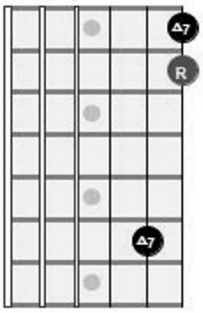

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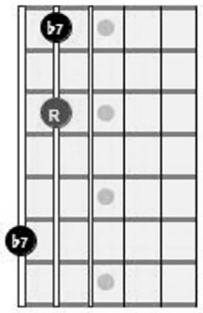

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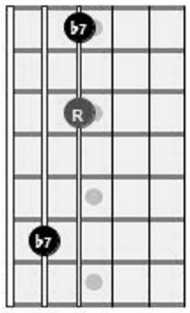

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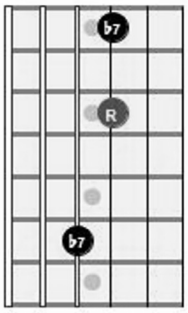

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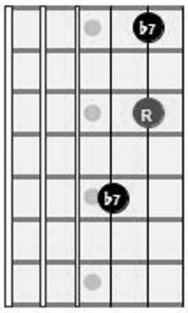

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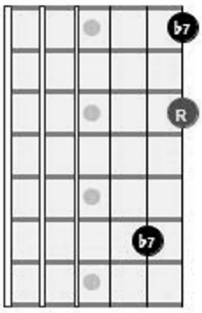

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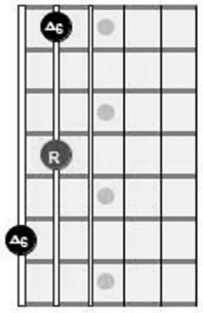

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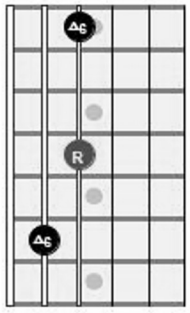

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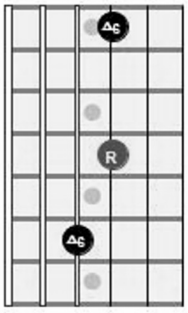

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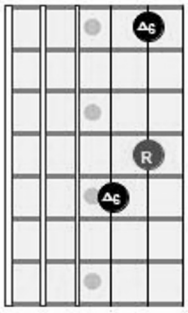

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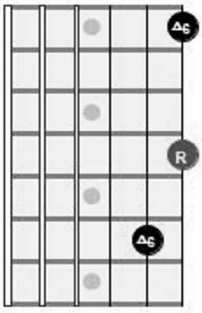

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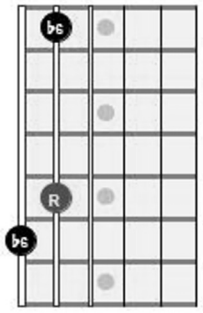

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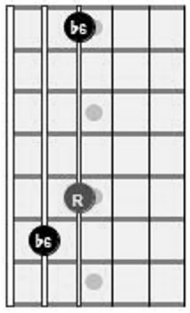

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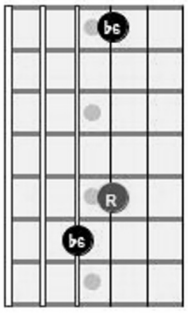

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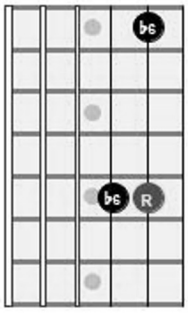

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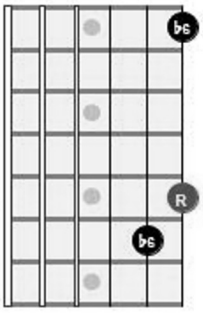

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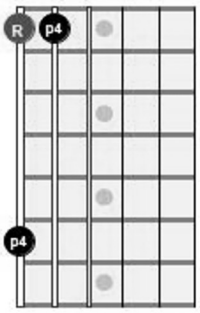

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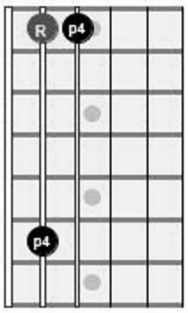

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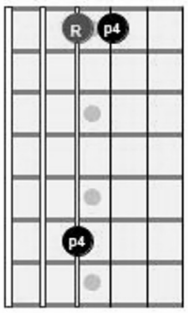

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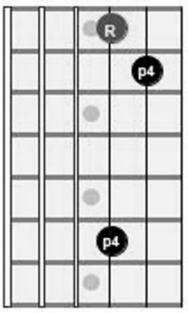

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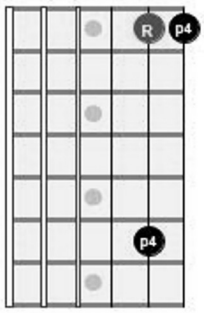

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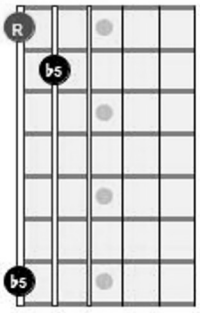

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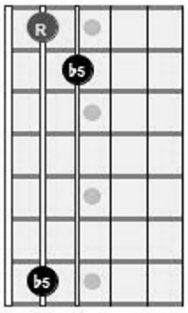

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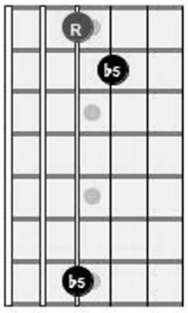

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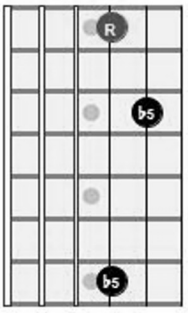

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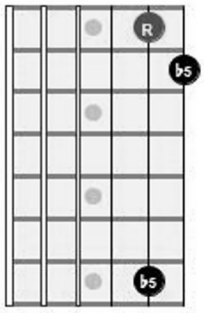

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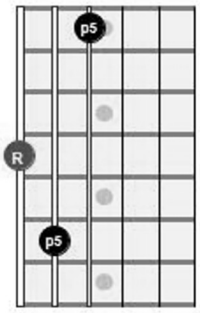

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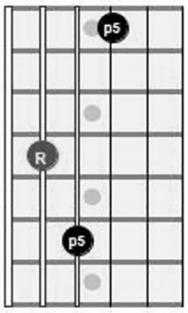

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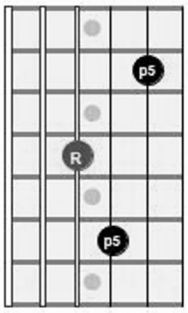

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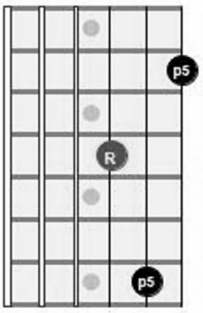

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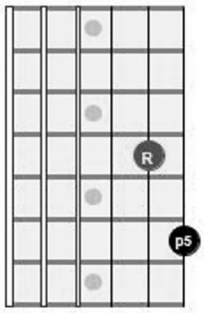

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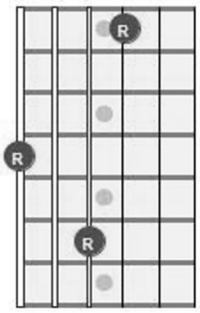

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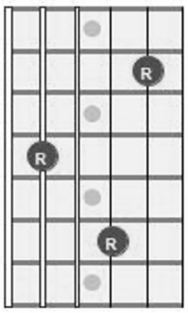

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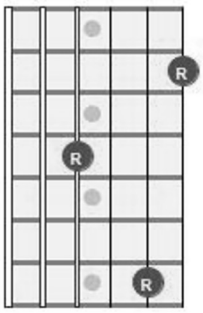

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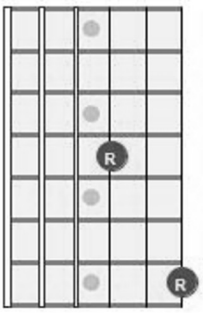

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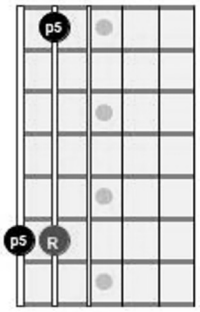

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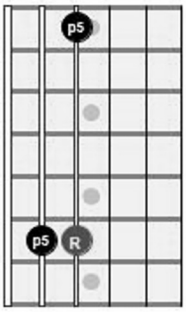

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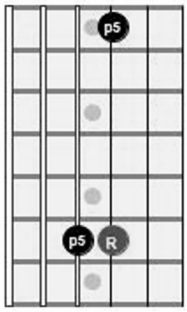

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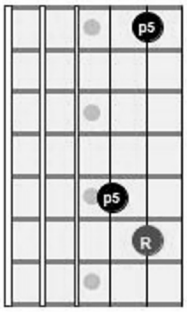
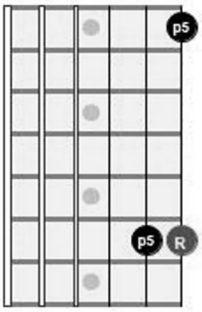
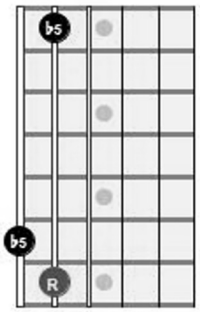


Perfect 4th below S1



Tritone below S5



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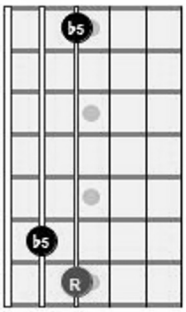

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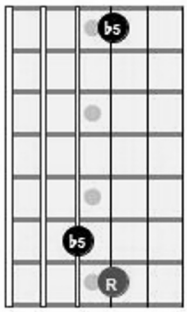

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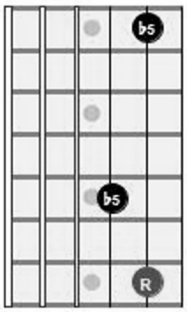

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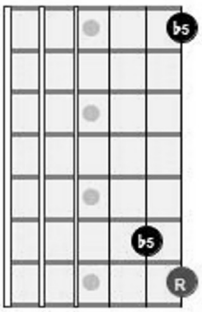

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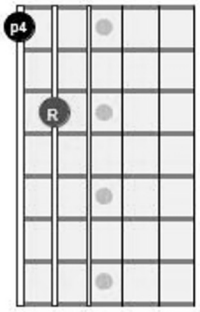

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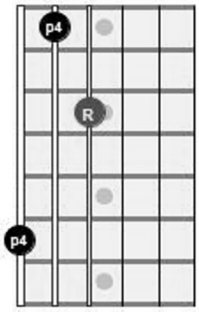

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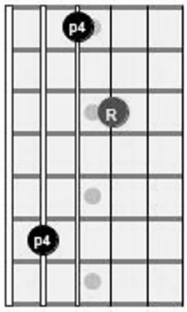

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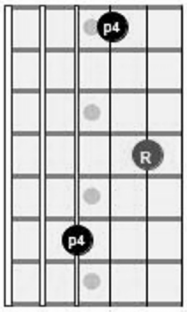
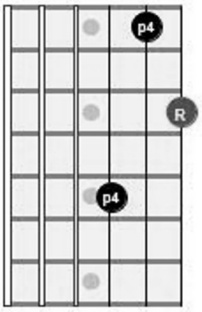
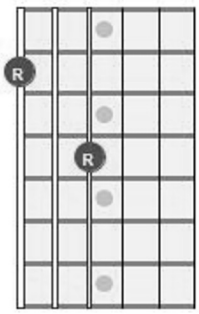


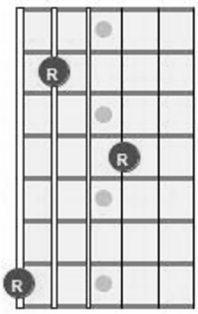
Perfect 5th below S1



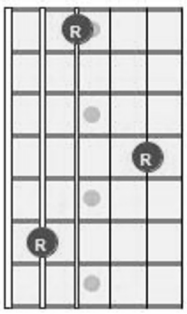
Octave below S4



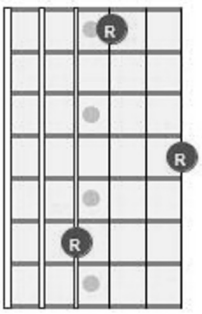
Octave below S3



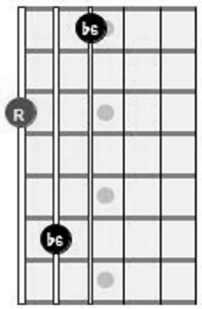
Octave below S2



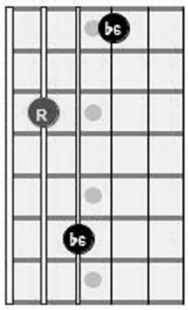
Octave below S1



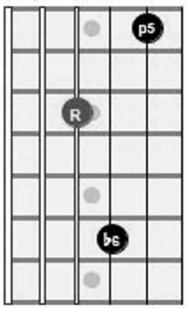
Minor 6th above S6



Minor 6th above S5



Minor 6th above S4



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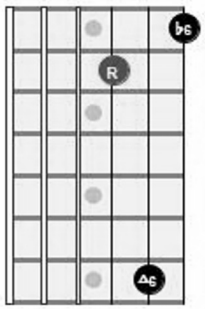

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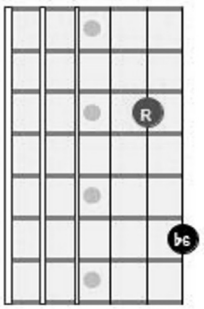

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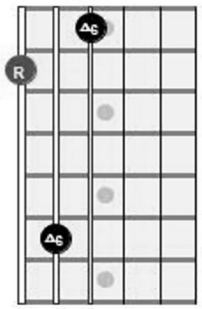

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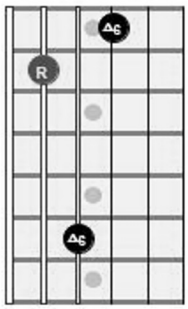

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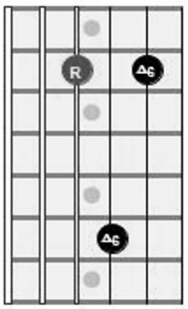

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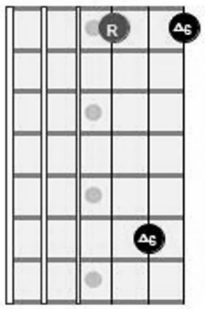

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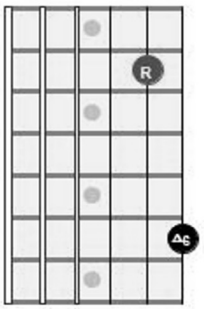

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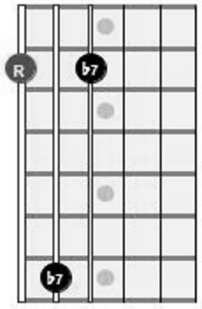

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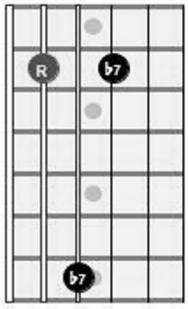

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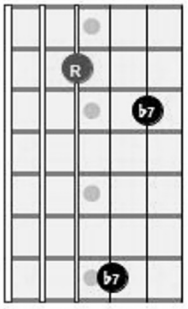

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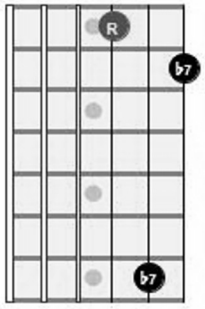

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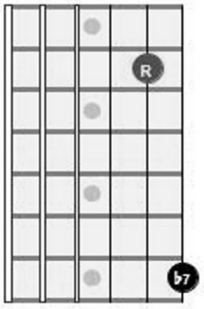

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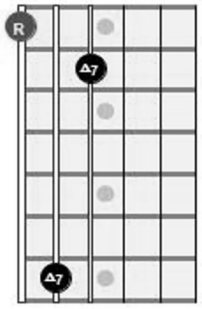

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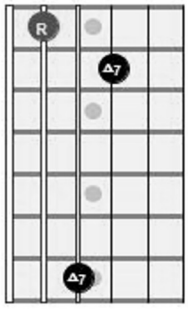

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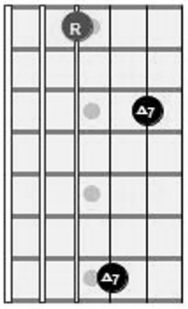

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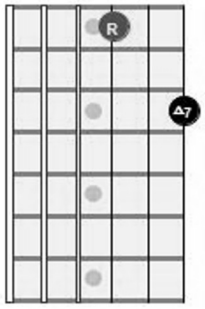

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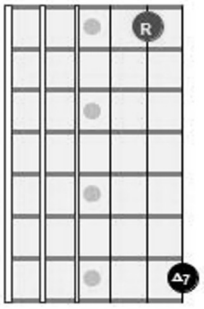

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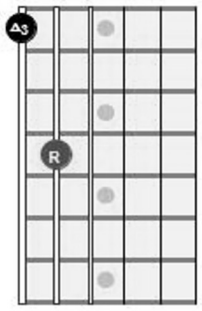

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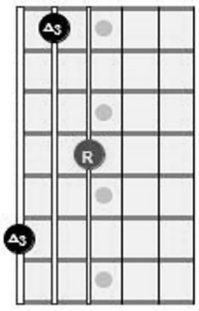

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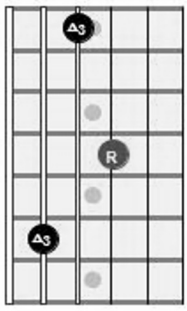

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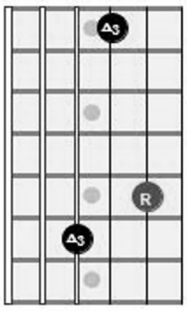

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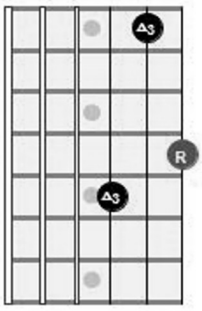

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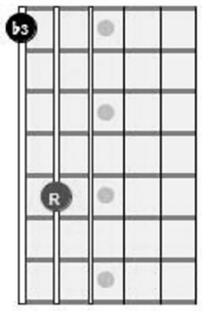

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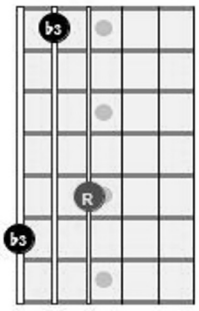

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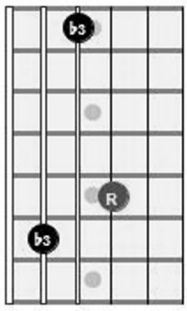

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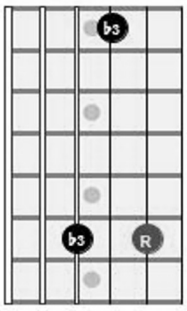

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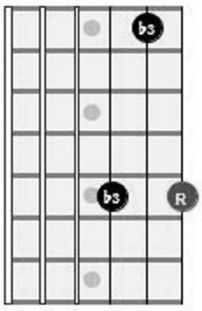

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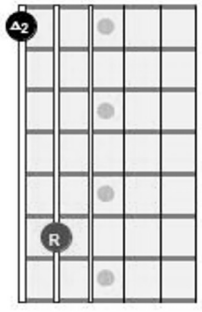

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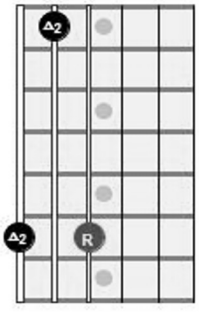

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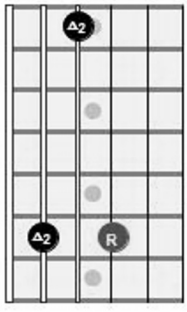

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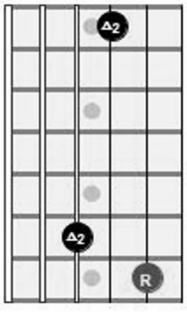

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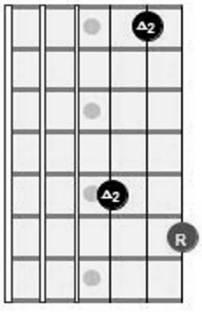

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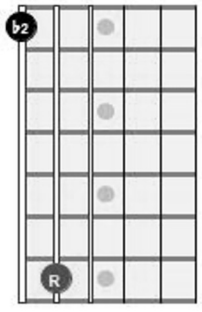

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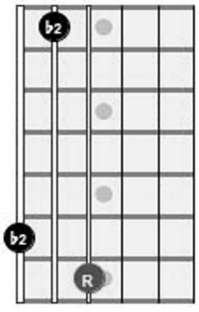

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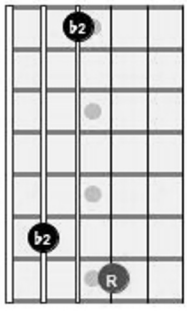

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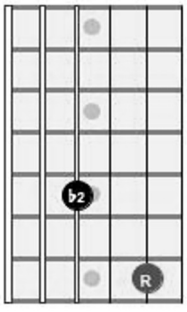

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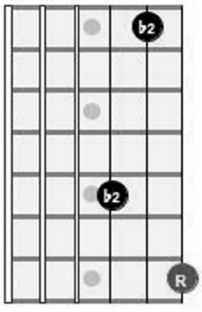
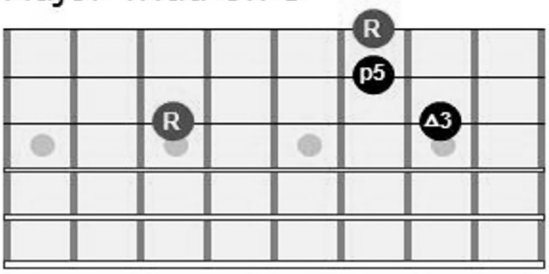
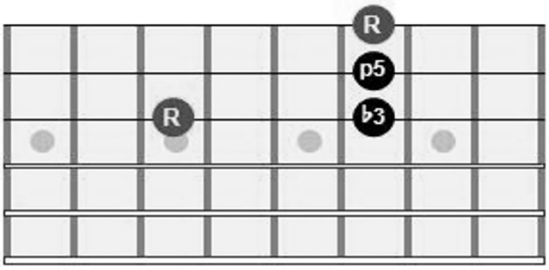


Major and Minor Arpeggios
Power Chord

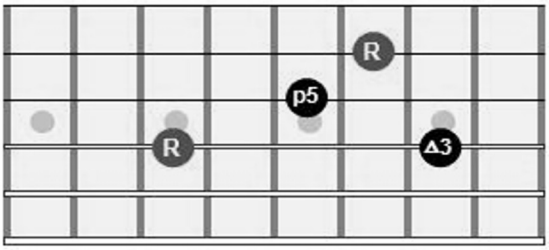
Major Triad on 3



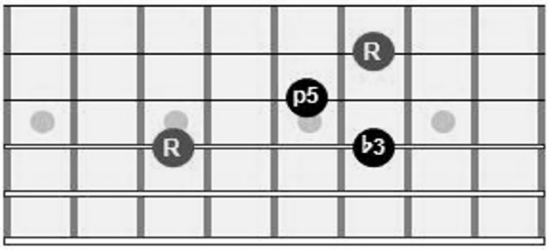
Minor Triad on 3



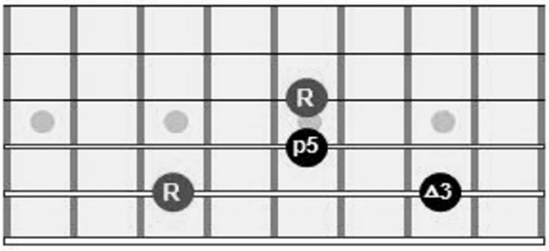
Major Triad on 4



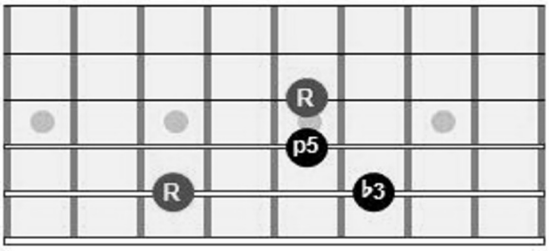
Minor Triad on 4



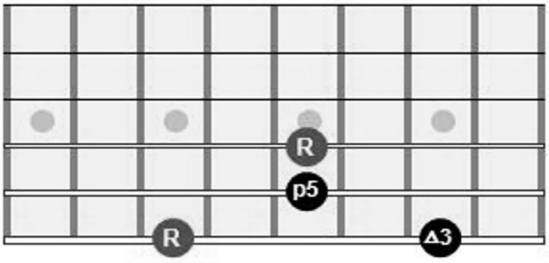
Major Triad on 5



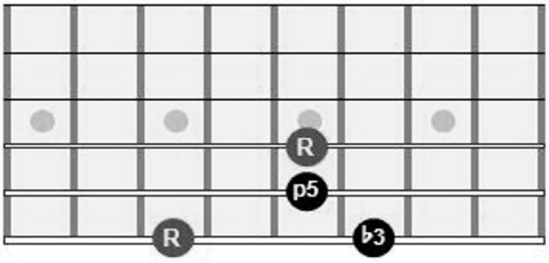
Minor Triad on 5



Major Triad on 6

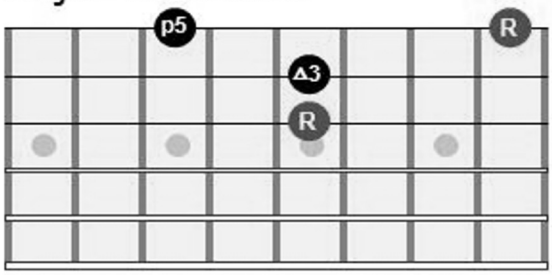


Minor Triad on 6

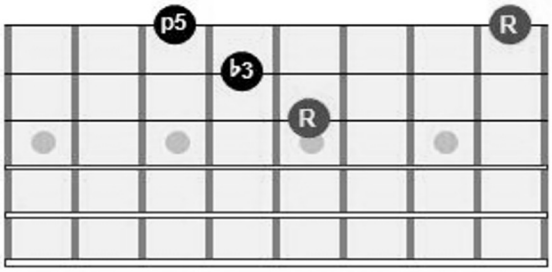


Major and Minor Arpeggios
Triadic

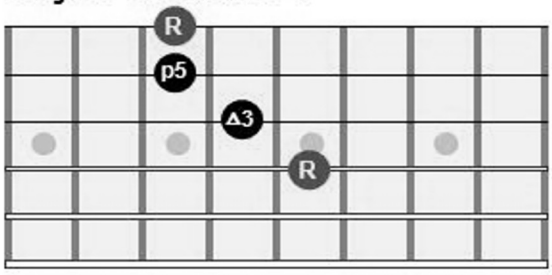
Major Triad on 3



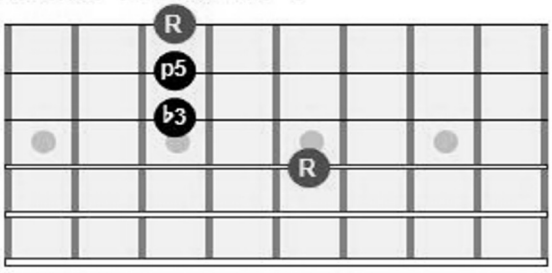
Minor Triad on 3



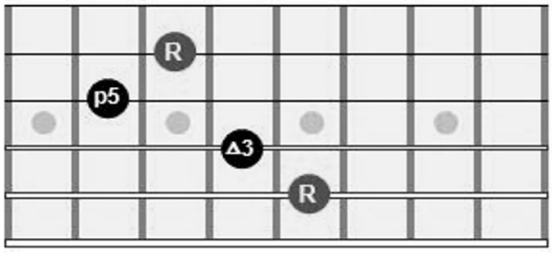
Major Triad on 4



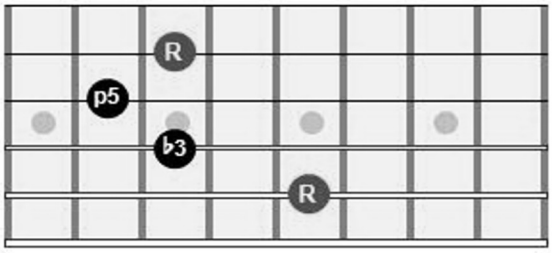
Minor Triad on 4



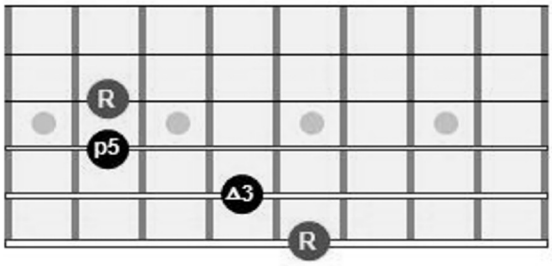
Major Triad on 5



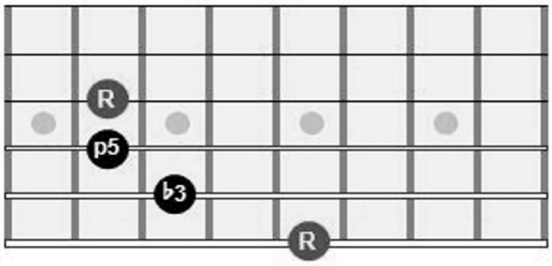
Minor Triad on 5



Major Triad on 6

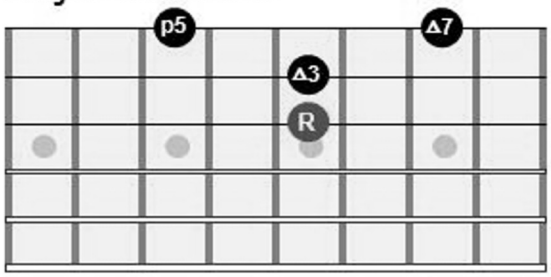


Minor Triad on 6

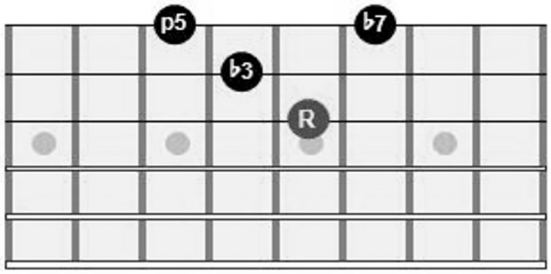


Arpeggios
Major 7ths, Minor 7ths

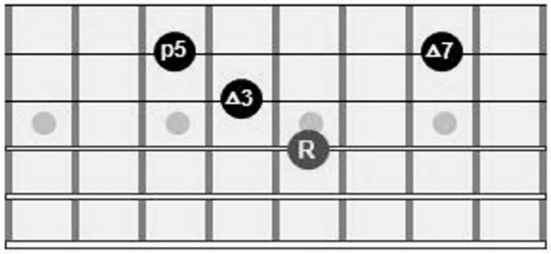
Major 7th on 3



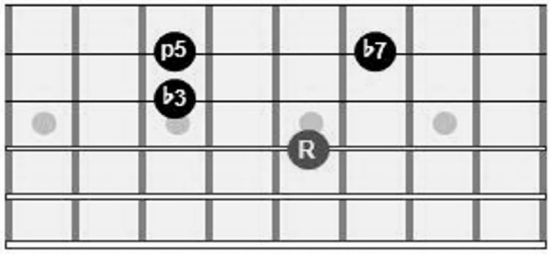
Minor 7th on 3



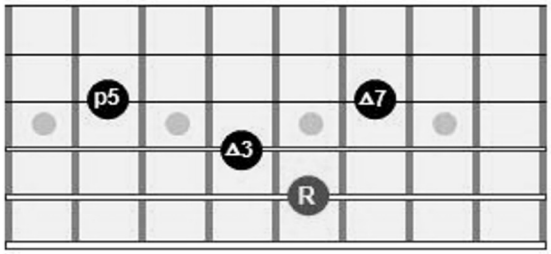
Major 7th on 4



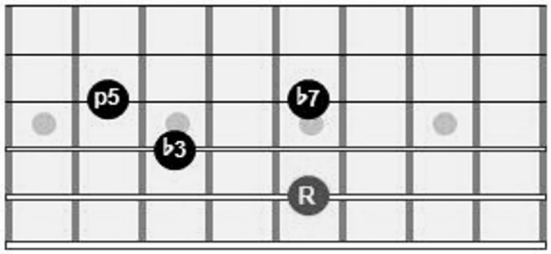
Minor 7th on 4



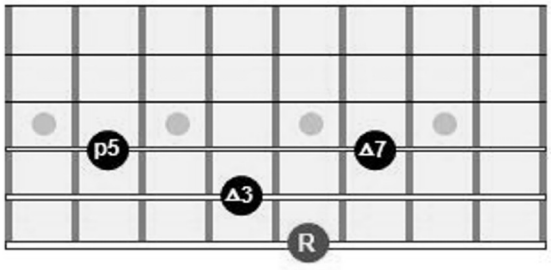
Major 7th on 5



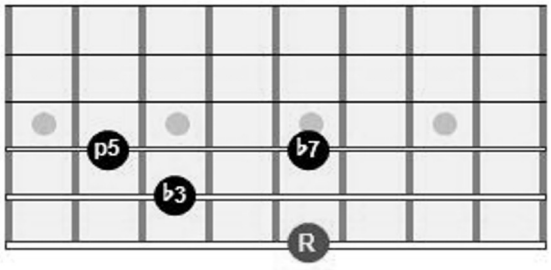
Minor 7th on 5



Major 7th on 6

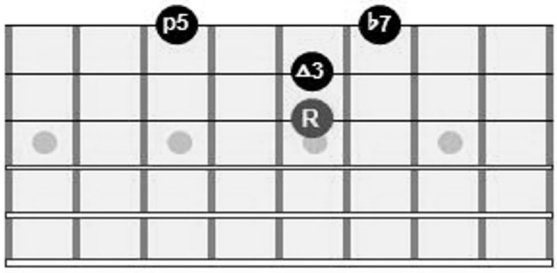


Minor 7th on 6

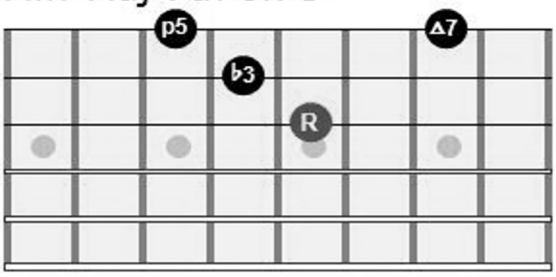


Arpeggios
Dom 7ths, Min-Maj 7ths

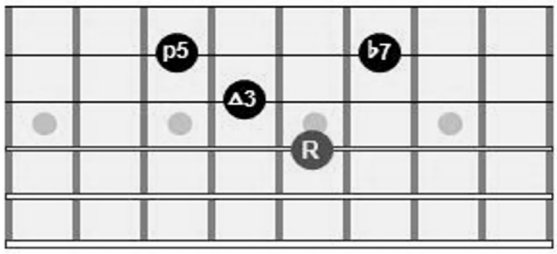
Dom 7th on 3



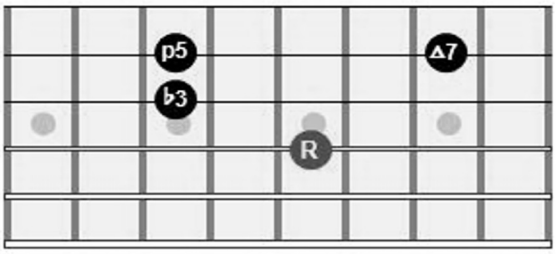
Min-Maj 7th on 3



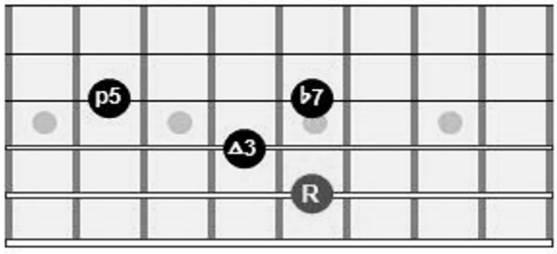
Dom 7th on 4



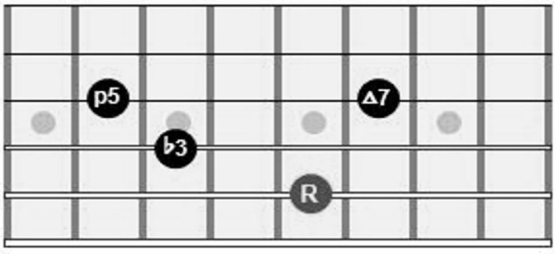
Min-Maj 7th on 4



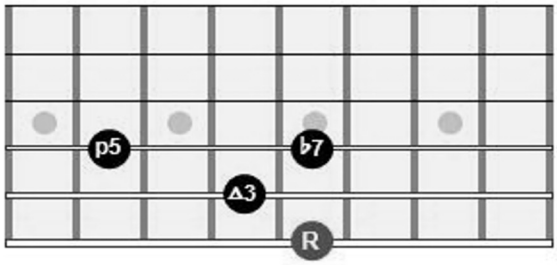
Dom 7th on 5



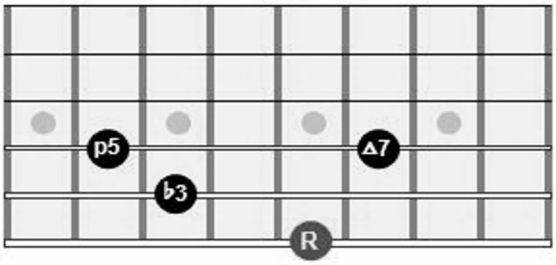
Min-Maj 7th on 5



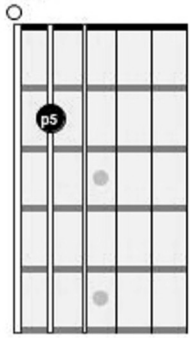
Dom 7th on 6



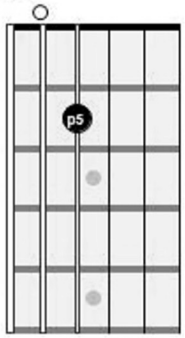
Min-Maj 7th on 6



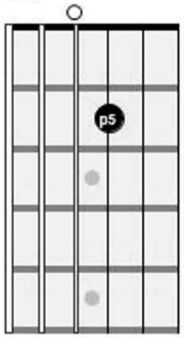
E5



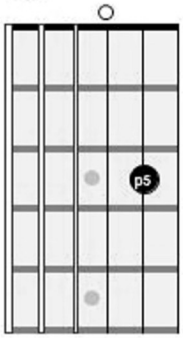
A5



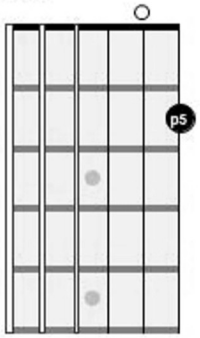
D5



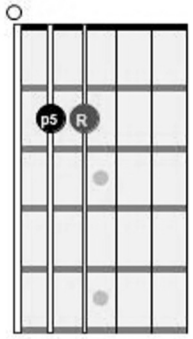
G5



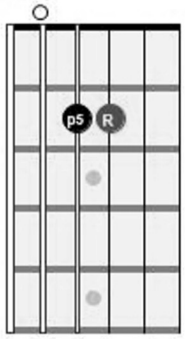
B5



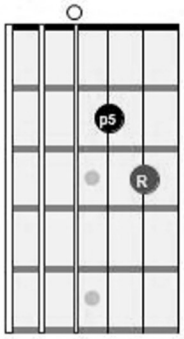
E5



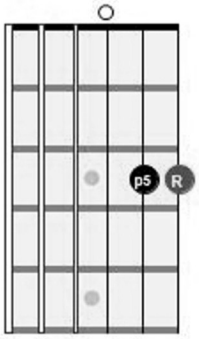
A5



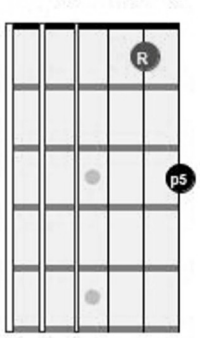
D5



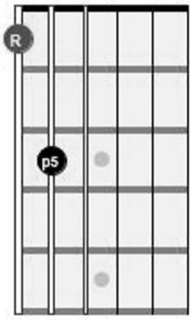
G5



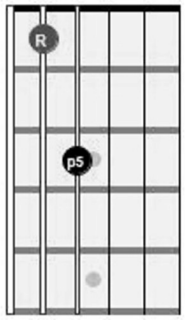
C5 (shape)



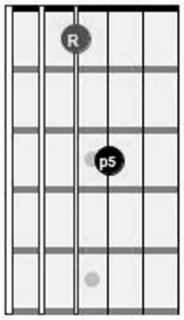
E5 shape



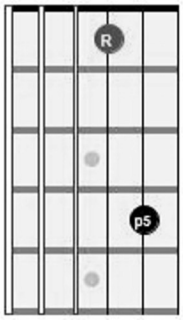
A5 shape



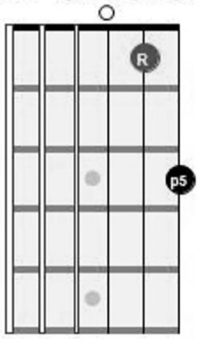
D5 shape



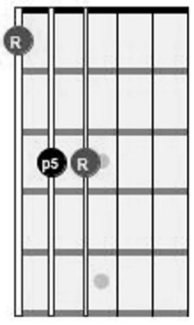
G5 shape



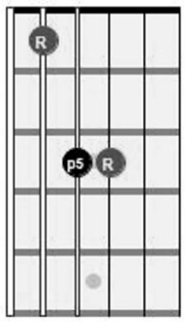
C5 (shape)



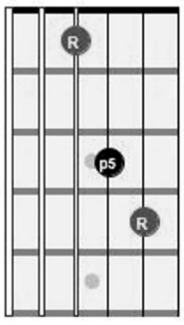
E5 shape



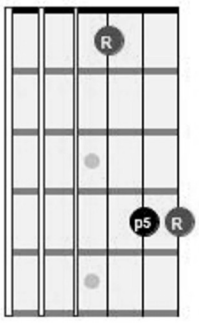
A5 shape



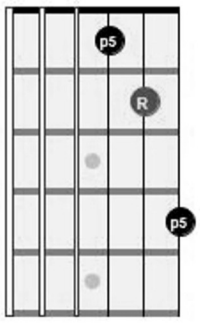
D5 shape



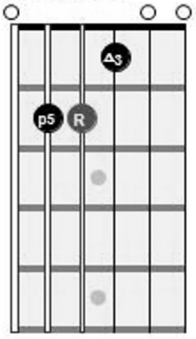
G5 shape



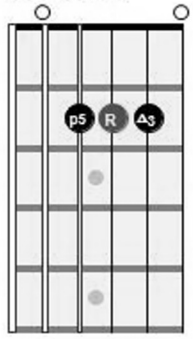
C5 shape



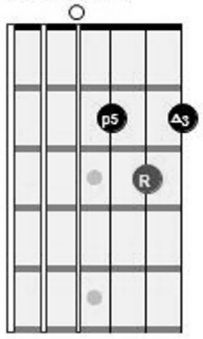
E Major



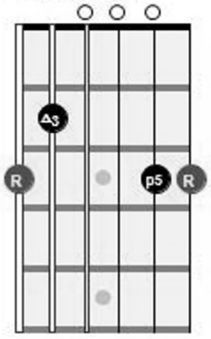
A Major



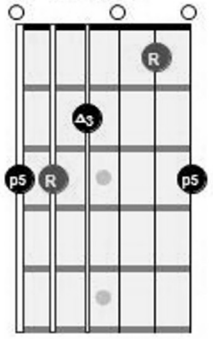
D Major



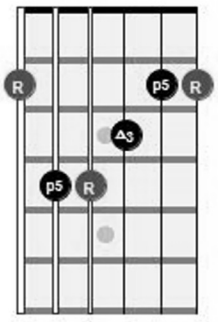
G Major



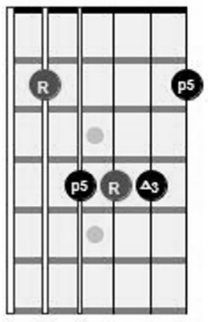
C Major



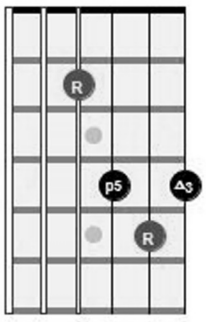
EM Shape



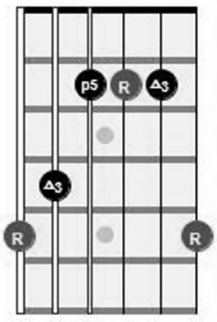
AM Shape



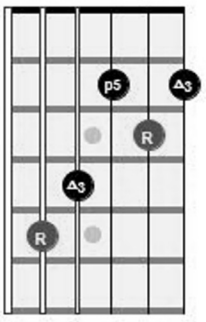
DM Shape



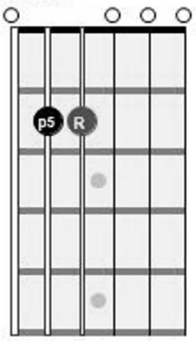
GM Shape



CM Shape



Em



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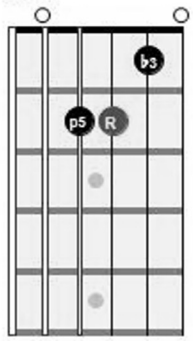
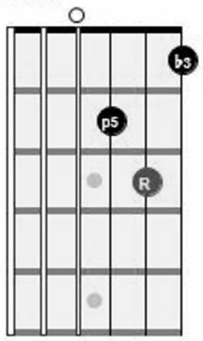
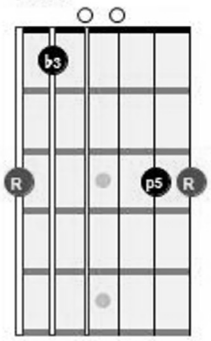


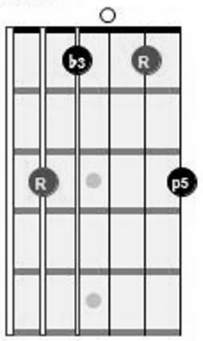
Dm



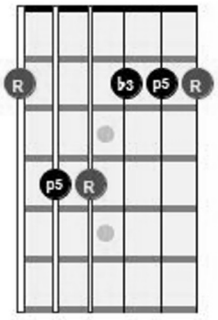
Gm



Cm



Em Shape



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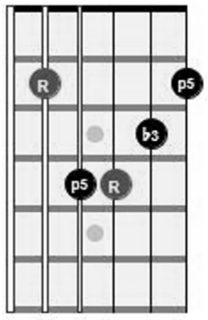

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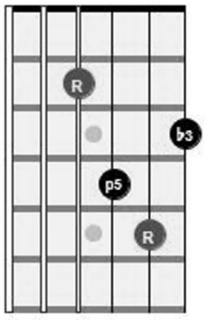
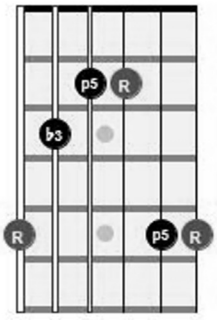


Gm Shape



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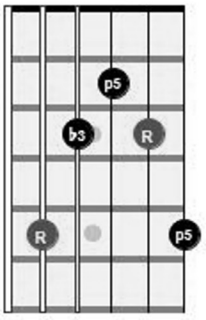
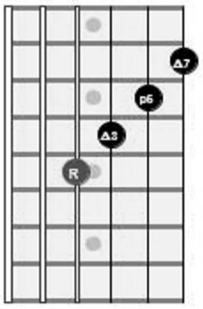
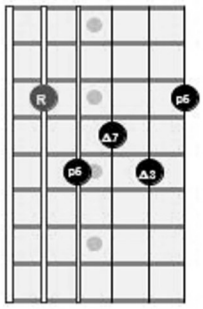


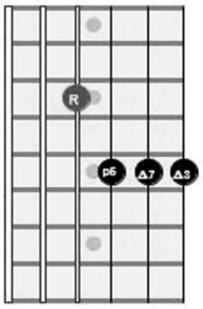
EM7 shape



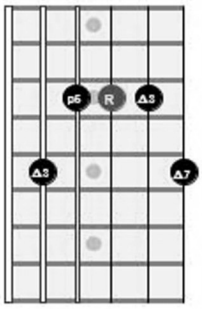
AM7 shape



DM7 shape



GM7 shape



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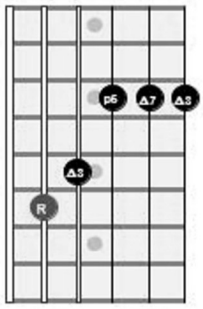
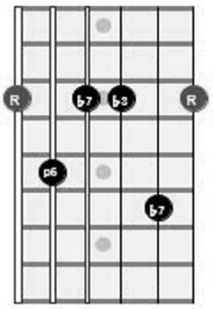


Em7 shape



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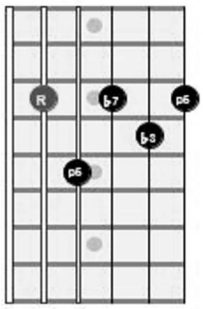
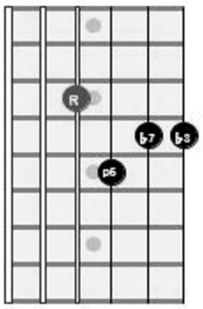


Dm7 shape



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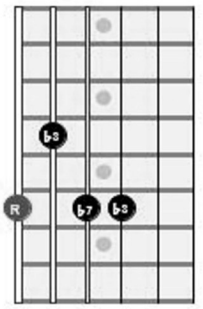

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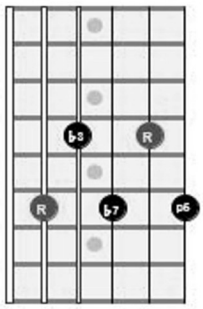
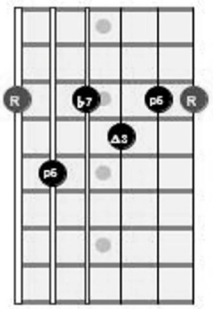


E7 shape



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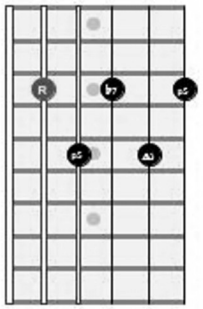
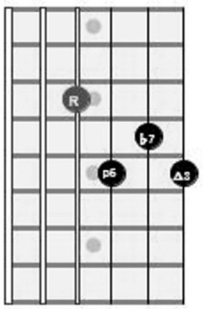
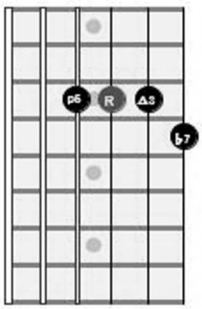


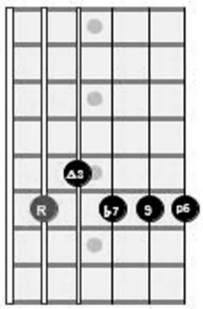
D7 shape



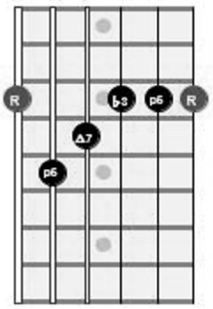
G7 shape



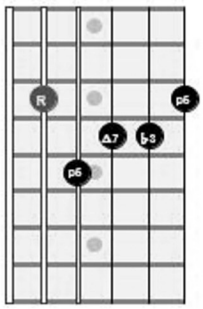
C9 shape



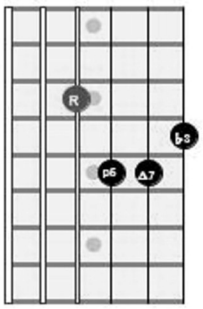
EmM7 shape



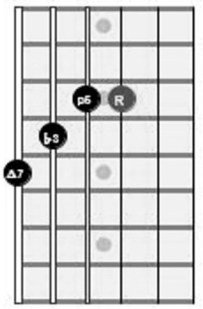
AmM7 shape



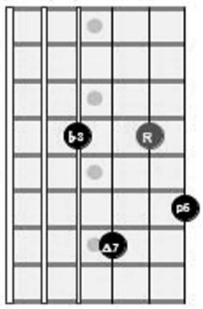
DmM7 shape



GmM7 shape

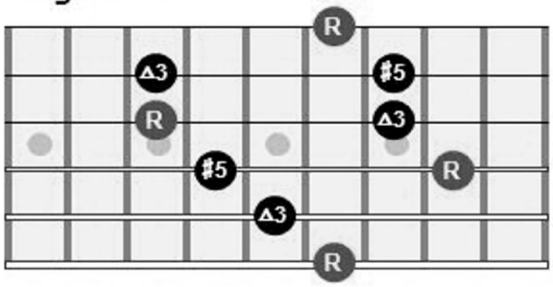


CmM7 shape

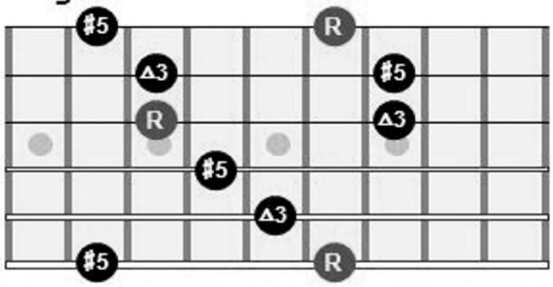


Augmented Triads

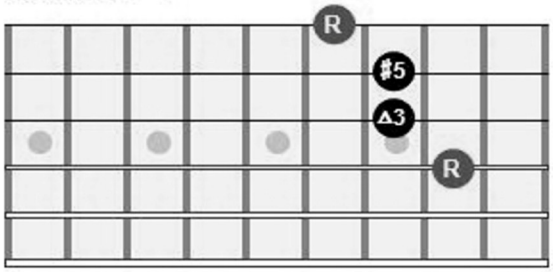
Augmented Box 1



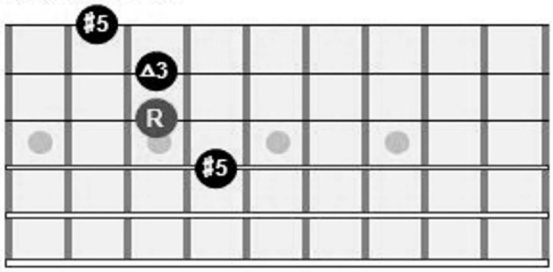
Augmented Box 2



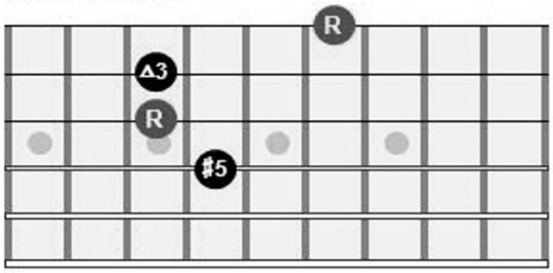
Version 1



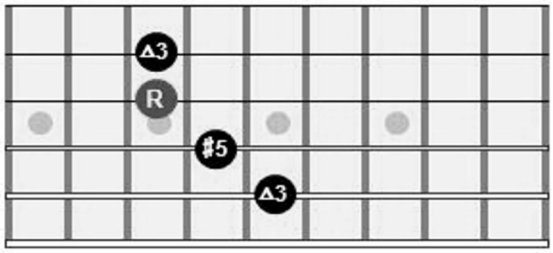
Version 1



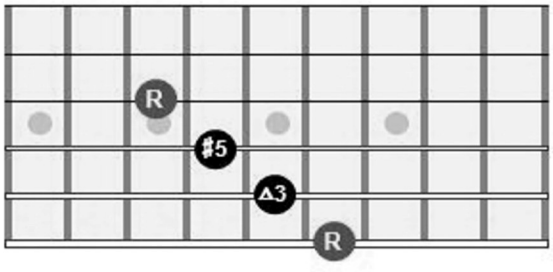
Version 2



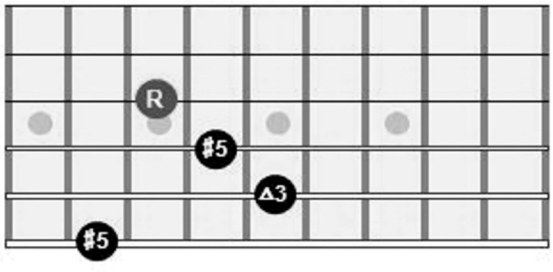
Version 3



Version 4

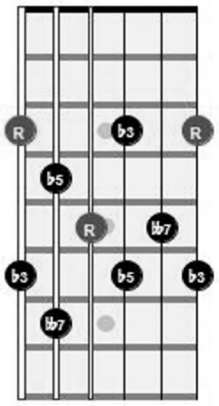


Version 5

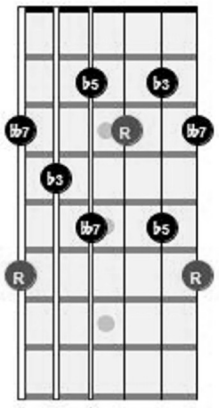


Diminished Triads

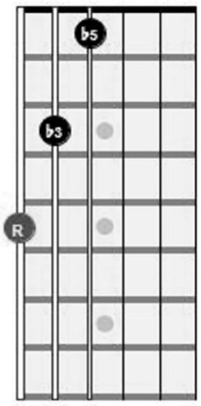
Diminished Box 1



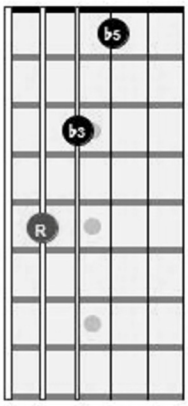
Diminished Box 2



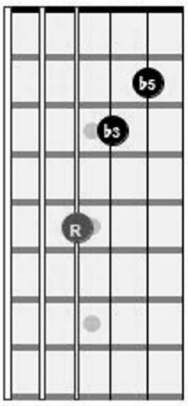
Btm R S6



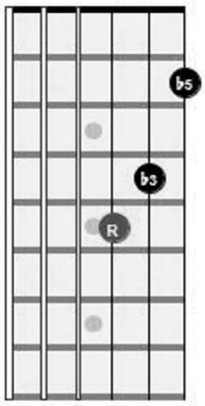
Btm R S5



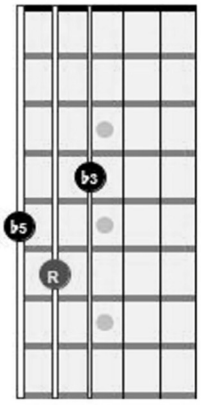
Btm R S4



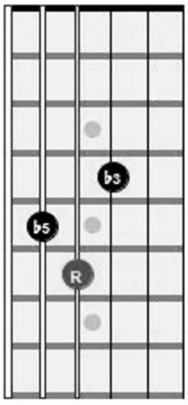
Btm R S3



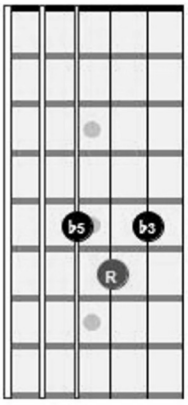
Mid R S5



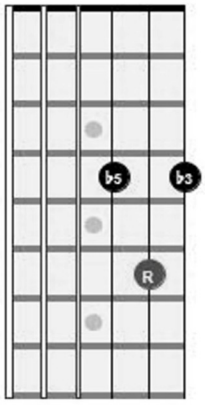
Mid R S4



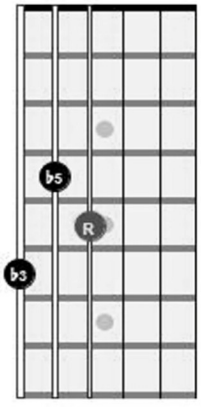
Mid R S3



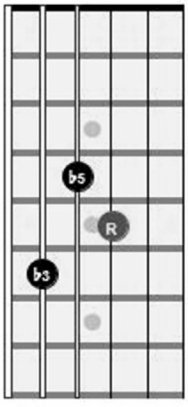
Mid R S2



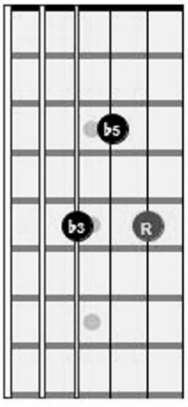
Top R S4



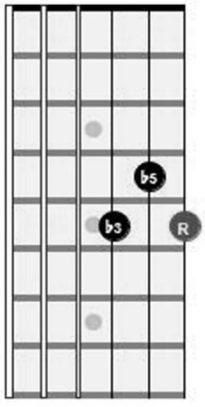
Top R S3



Top R S2

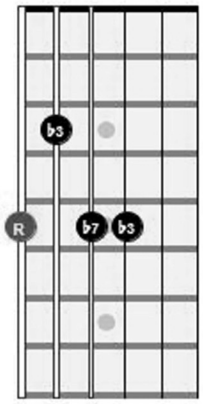


Top R S1

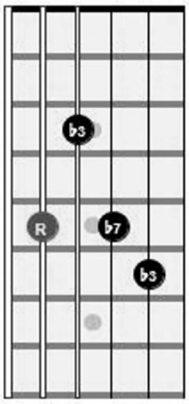


Half-Diminished 7ths

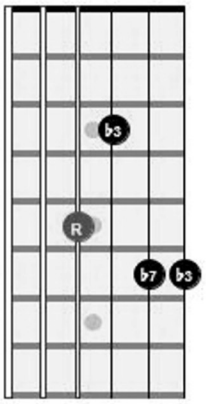
6: R-3-7



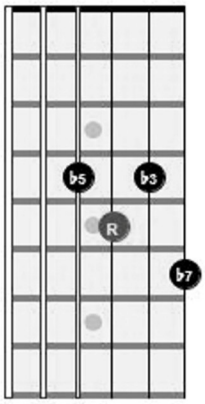
5: R-3-7



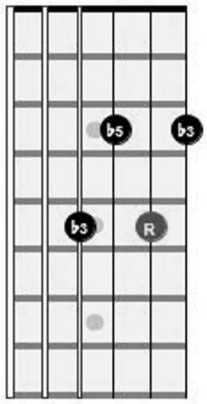
4: R-3-7



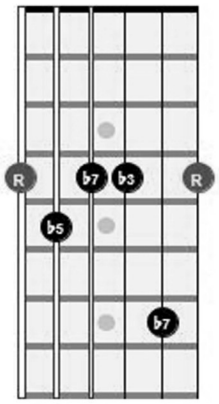
3: R-3-7



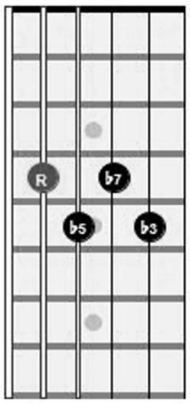
2: R-3



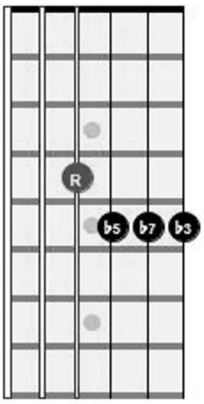
6: R-5-7



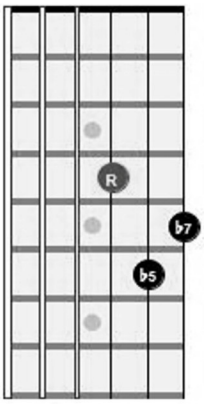
5: R-5-7



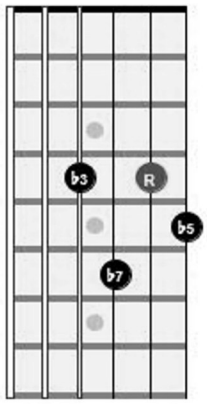
4: R-5-7



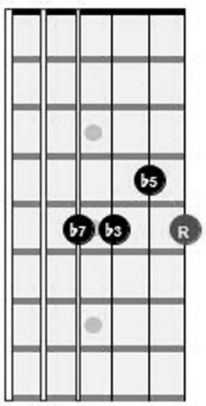
3: R-5-7



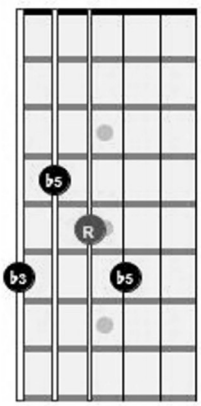
2: 7-R-5



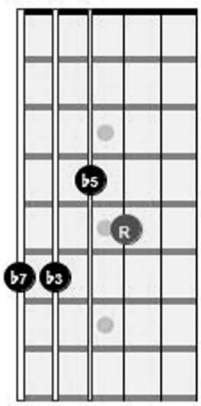
1: 7-3-5-R



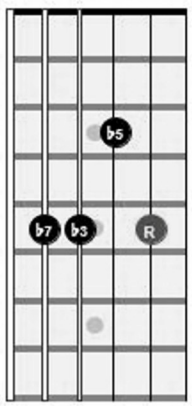
4: 3-5-R



3: 7-3-5-R

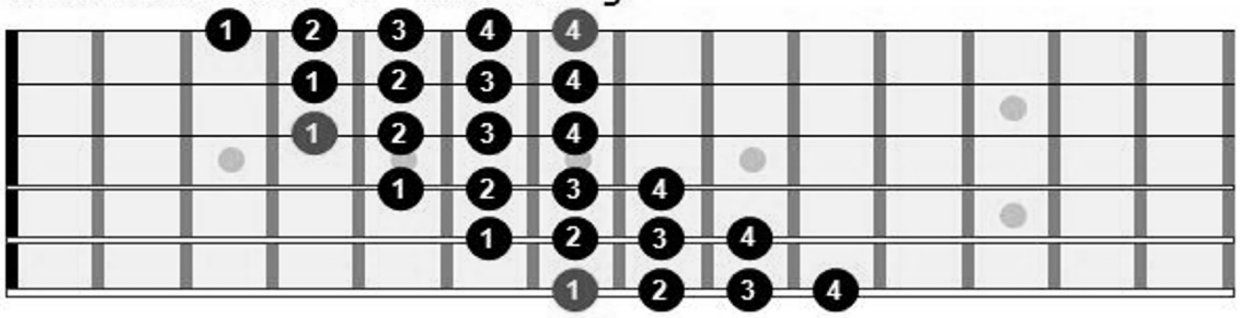


2: 7-3-5-R

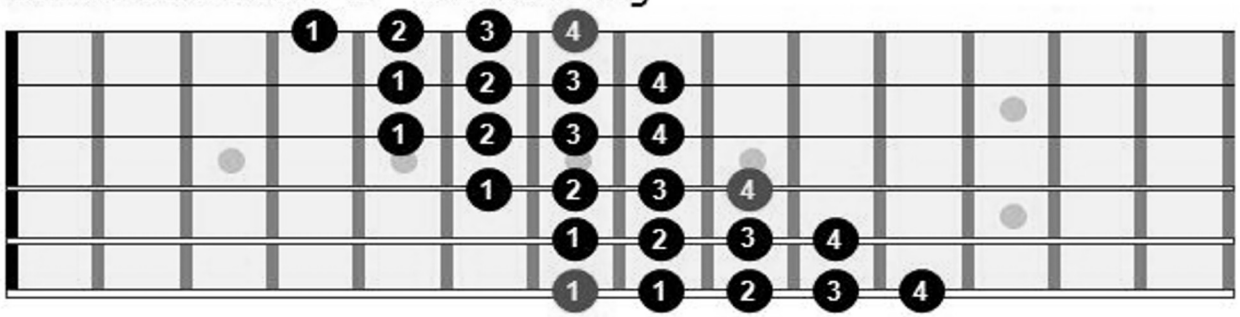


Chromatic Scales

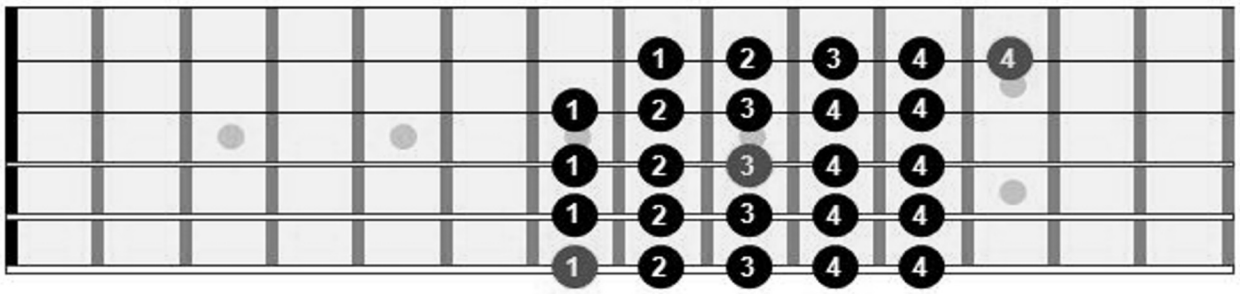
Chromatic Scale 1 - Ascending



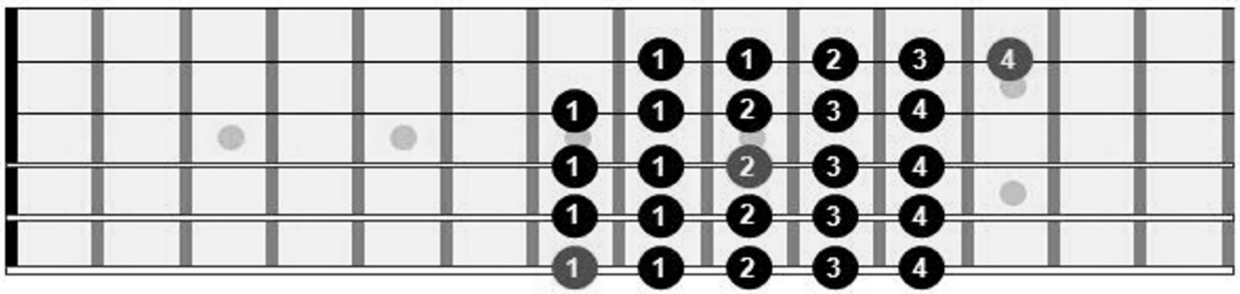
Chromatic Scale 1 - Descending



Chromatic Scale 2 - Ascending

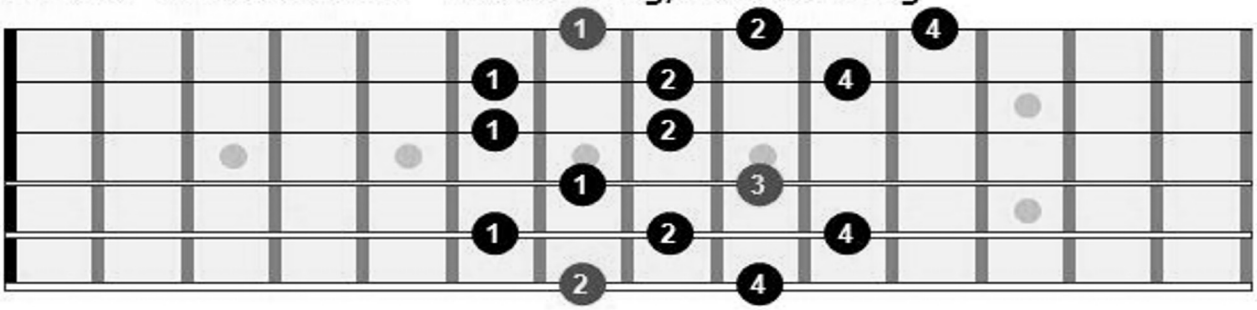


Chromatic Scale 2 - Descending

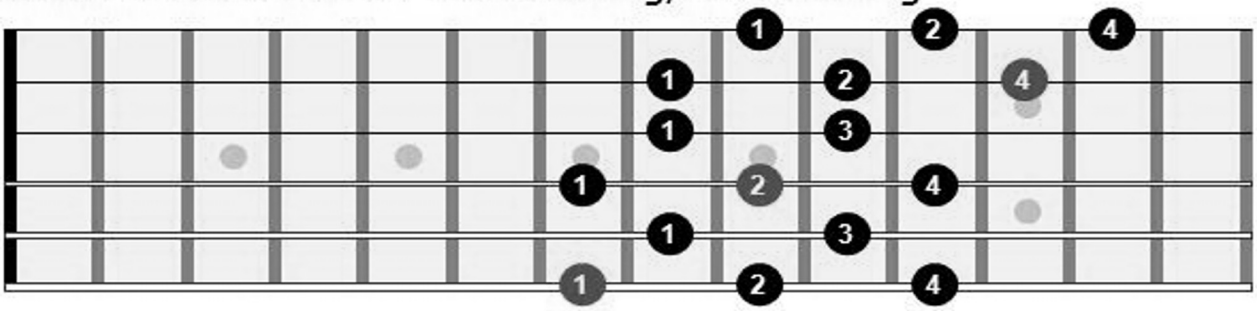


Whole-Tone Scales

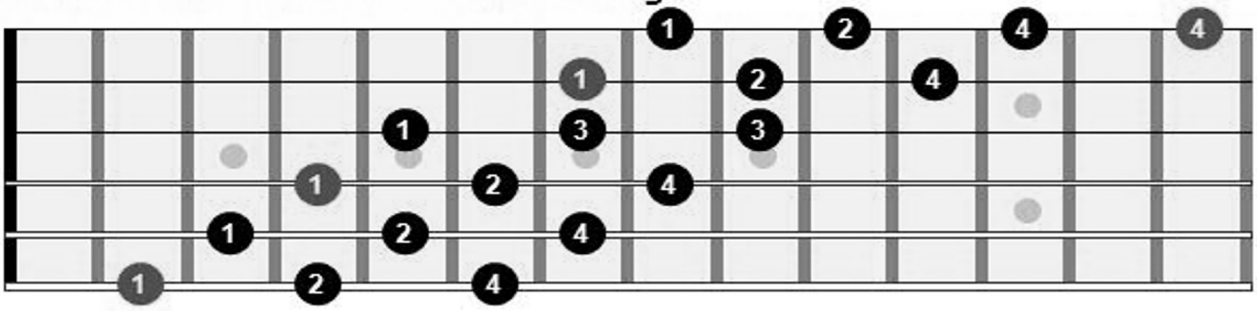
Whole-Tone Scale 1 - Ascending/Descending



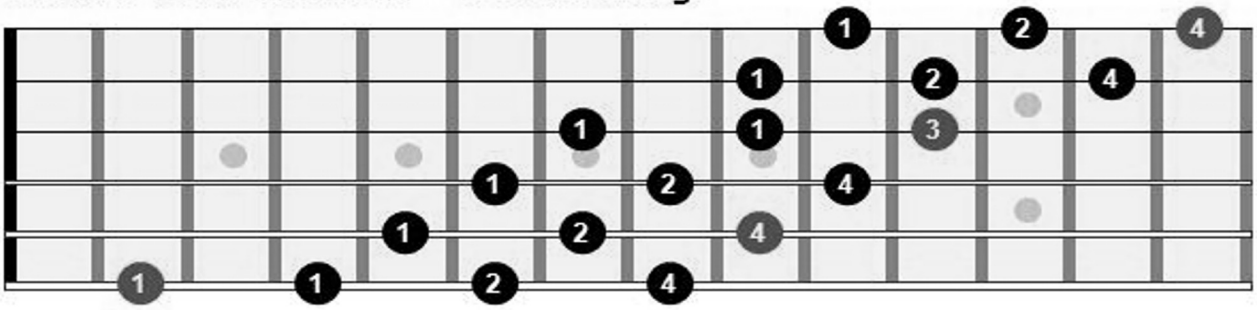
Whole-Tone Scale 2 - Ascending/Descending



Whole-Tone Scale 3 - Ascending

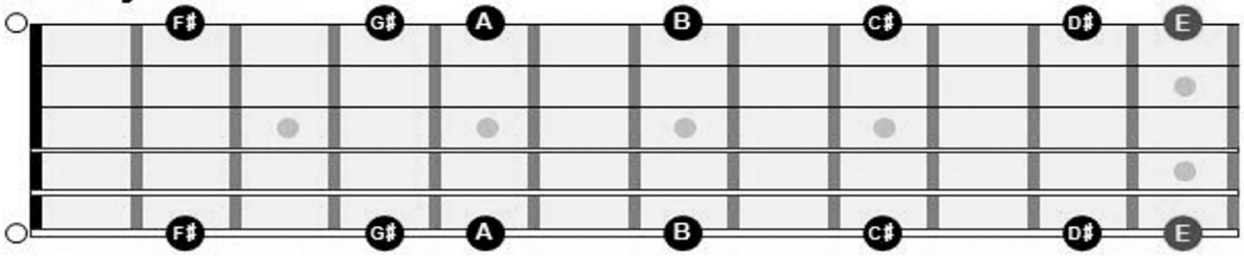


Whole-Tone Scale 3 - Descending

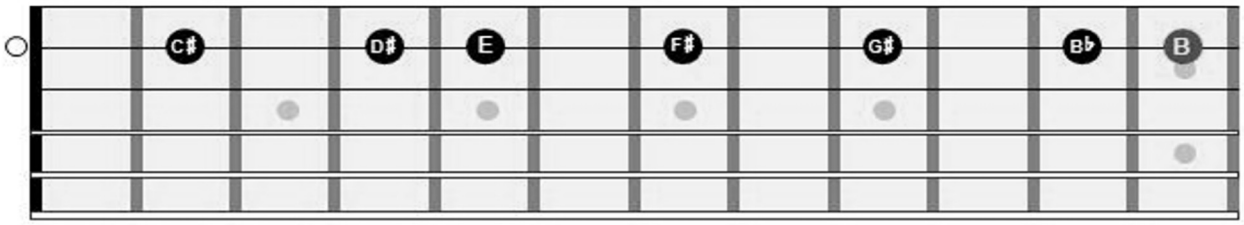


Single String Scales
Major

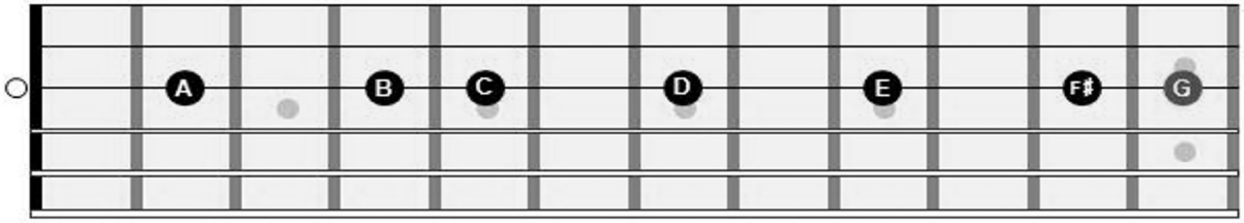
E Major Scale



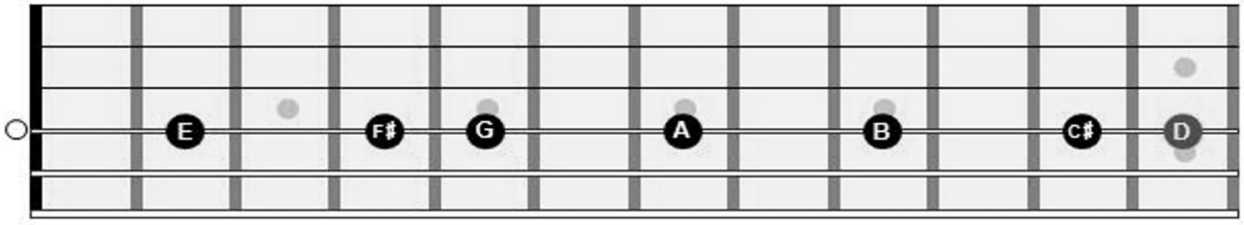
B Major Scale



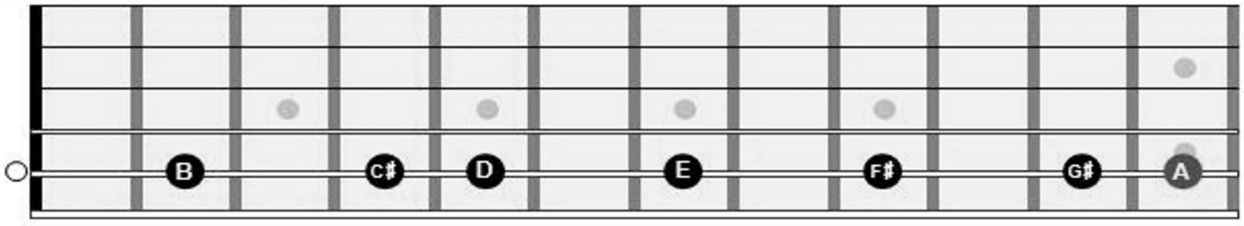
G Major Scale



D Major Scale

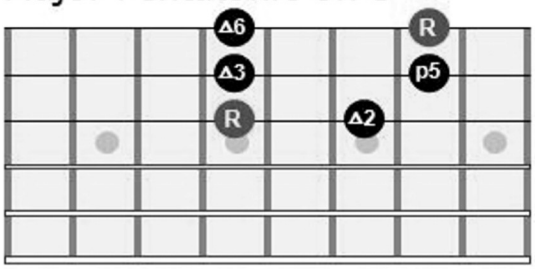


A Major Scale

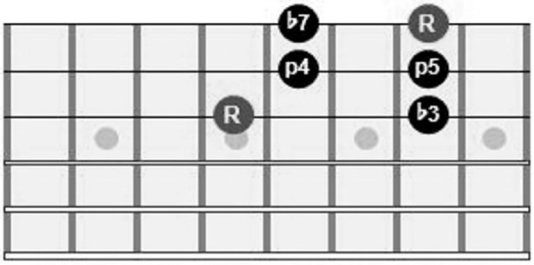


Major and Minor Pentatonics
Power Chord

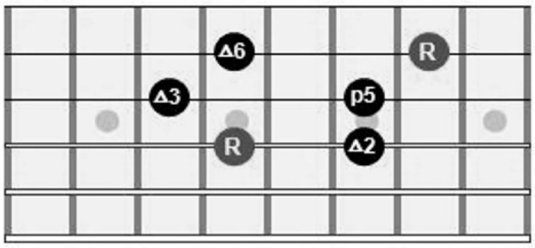
Major Pentatonic on 3



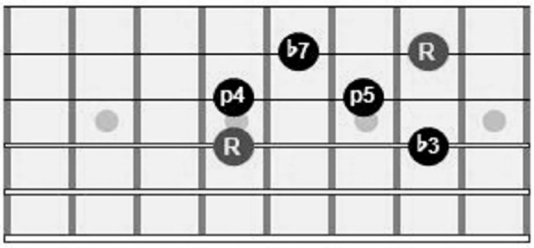
Minor Pentatonic on 3



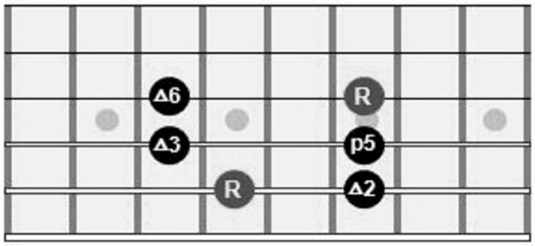
Major Pentatonic on 4



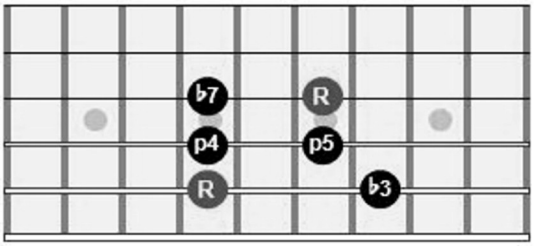
Minor Pentatonic on 4



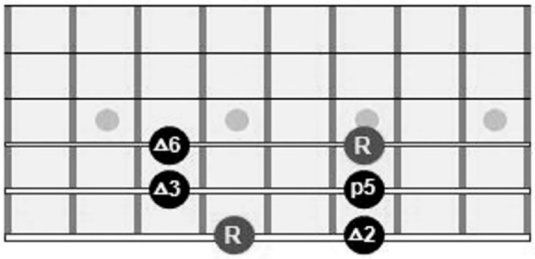
Major Pentatonic on 5



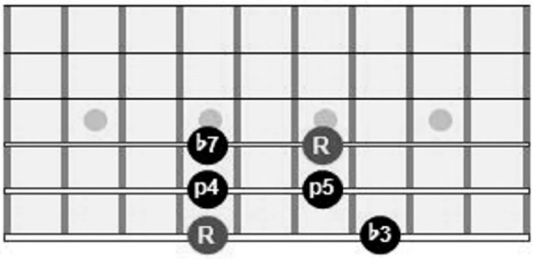
Minor Pentatonic on 5



Major Pentatonic on 6

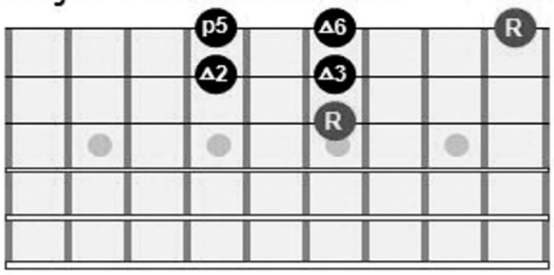


Minor Pentatonic on 6

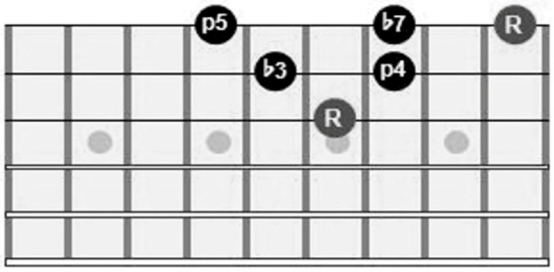


Major and Minor Pentatonics
Triadic

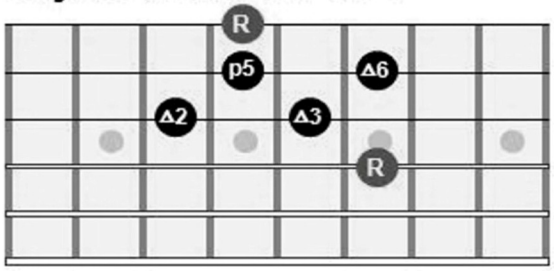
Major Pentatonic on 3



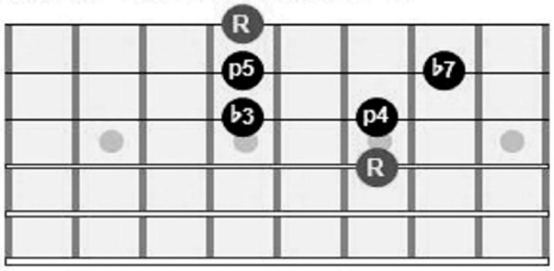
Minor Pentatonic on 3



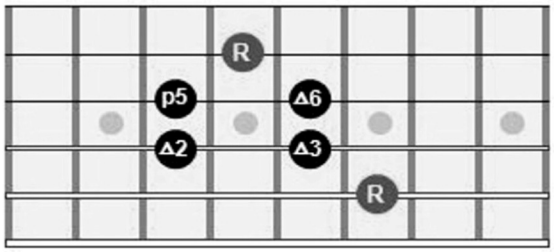
Major Pentatonic on 4



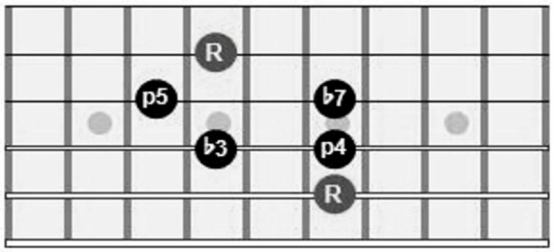
Minor Pentatonic on 4



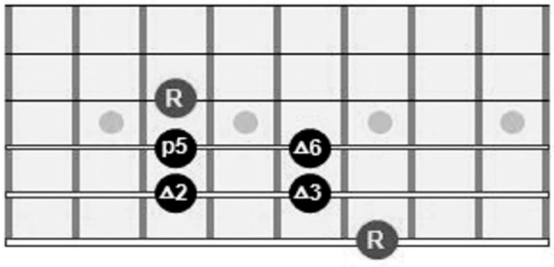
Major Pentatonic on 5



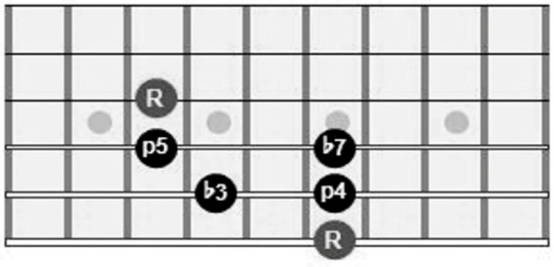
Minor Pentatonic on 5



Major Pentatonic on 6

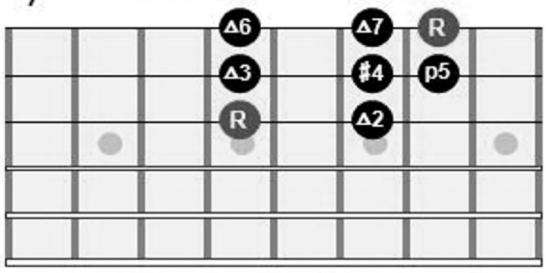


Minor Pentatonic on 6

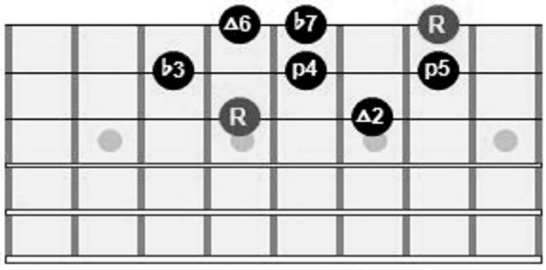


Diatonic Scales - String 1
Descending

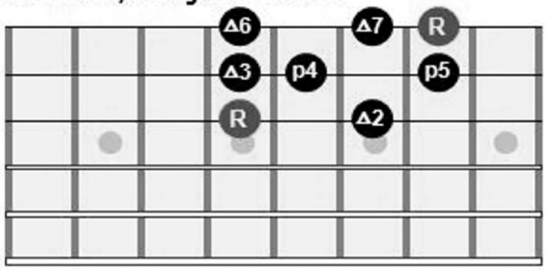
Lydian Scale



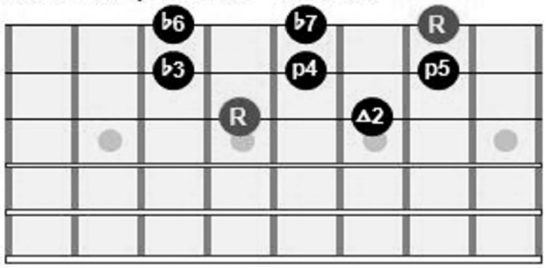
Dorian Scale



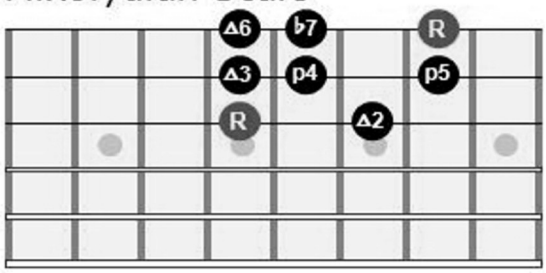
Ionian/Major Scale



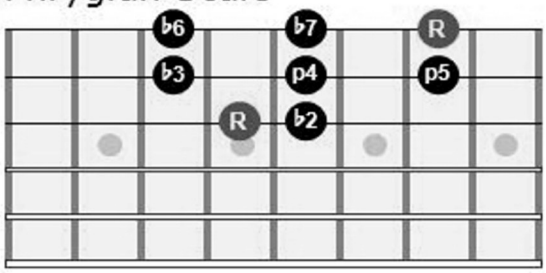
Aeolian/Minor Scale



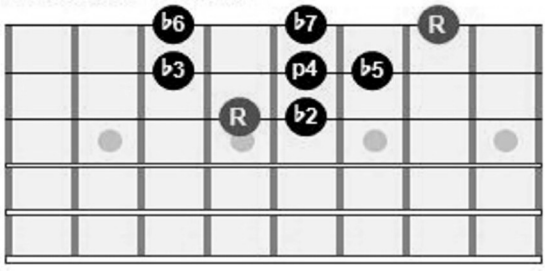
Mixolydian Scale



Phrygian Scale

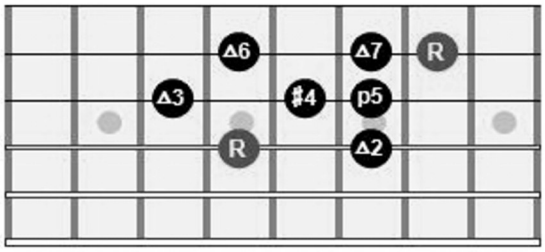


Locrian Scale

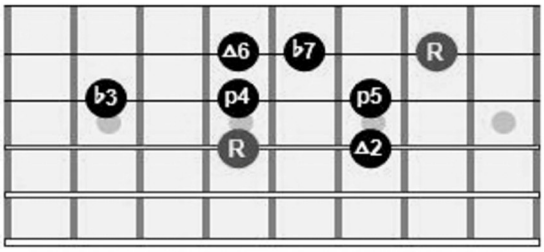


Diatonic Scales - String 2
Descending

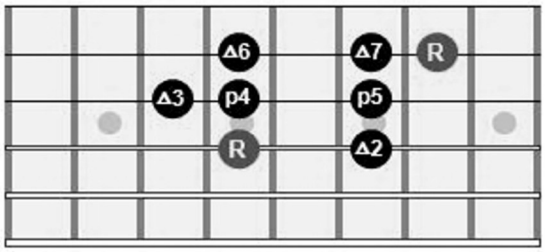
Lydian Scale



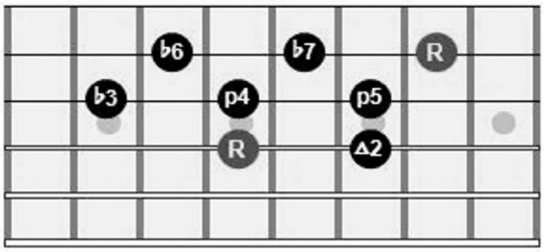
Dorian Scale



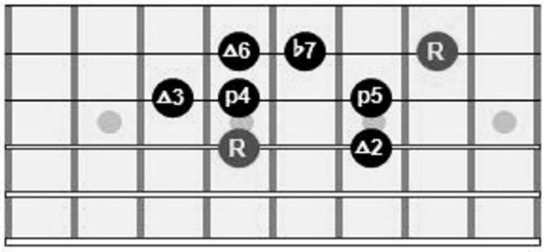
Ionian/Major Scale



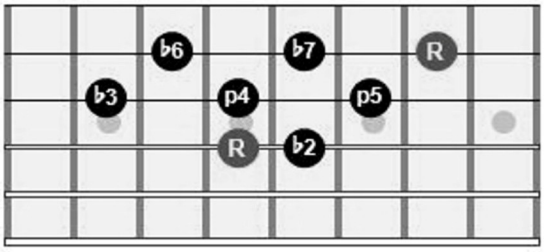
Aeolian/Minor Scale



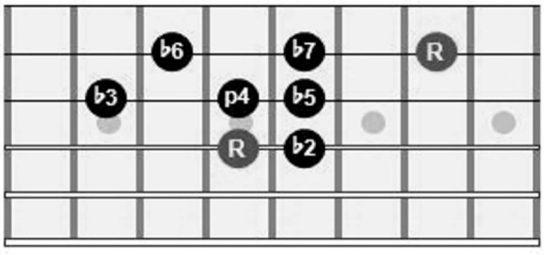
Mixolydian Scale



Phrygian Scale

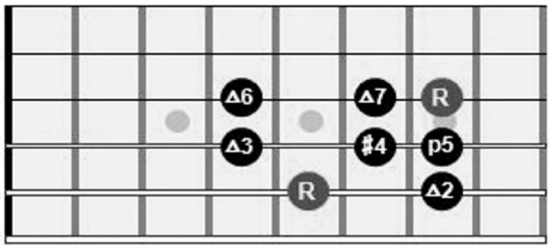


Locrian Scale

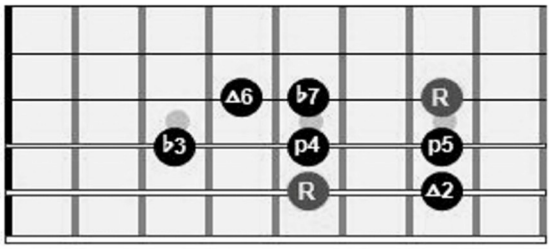


Diatonic Scales - String 3
Descending

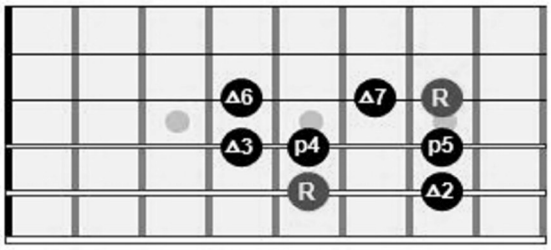
Lydian Scale



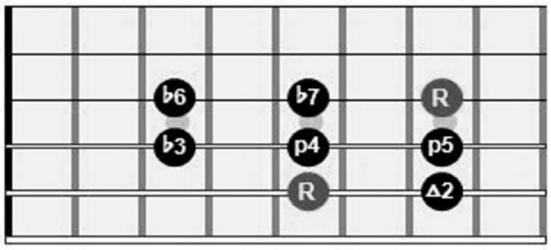
Dorian Scale



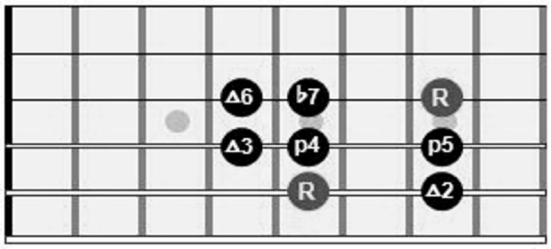
Ionian/Major Scale



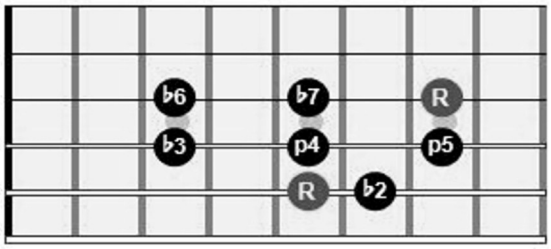
Aeolian/Minor Scale



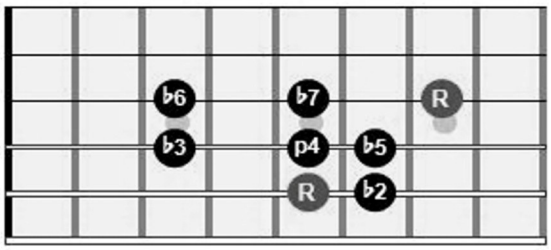
Mixolydian Scale



Phrygian Scale

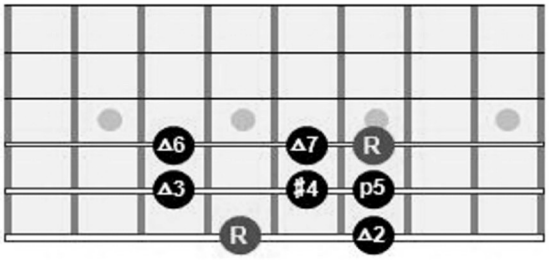


Locrian Scale

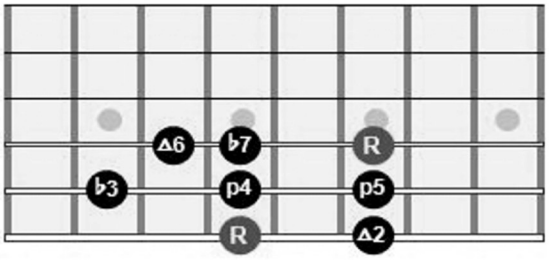


Diatonic Scales - String 4
Descending

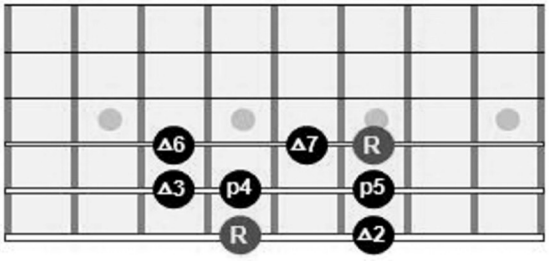
Lydian Scale



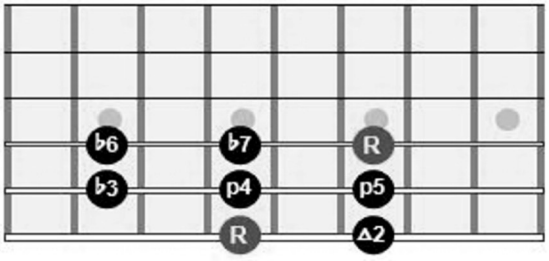
Dorian Scale



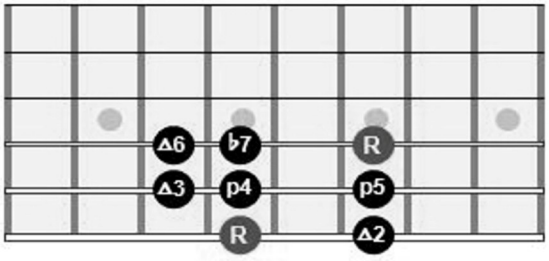
Ionian/Major Scale



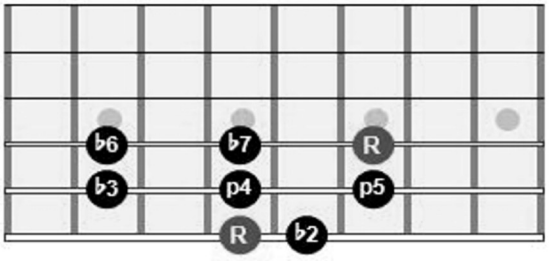
Aeolian/Minor Scale



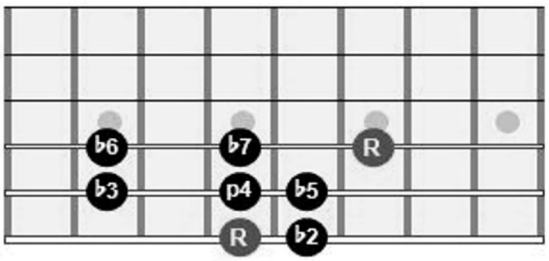
Mixolydian Scale



Phrygian Scale

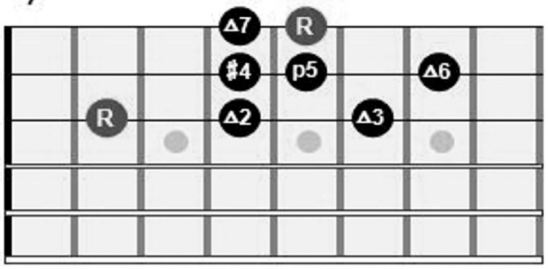


Locrian Scale

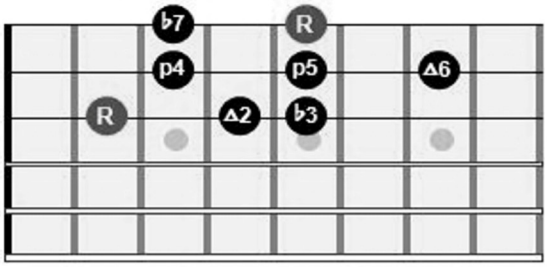


Diatonic Scales - String 3
Ascending

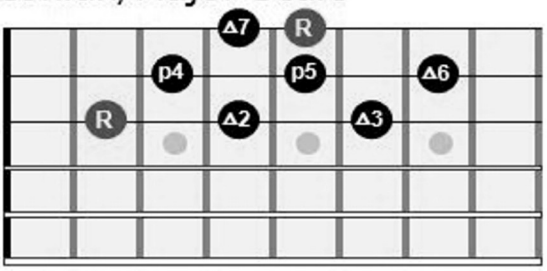
Lydian Scale



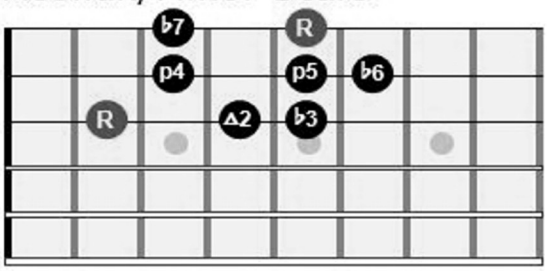
Dorian Scale



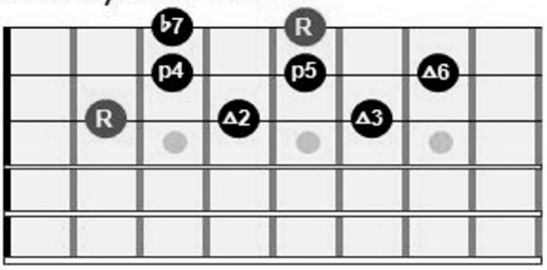
Ionian/Major Scale



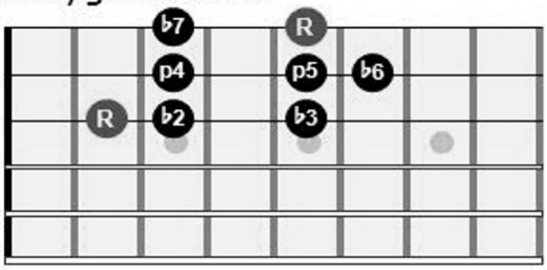
Aeolian/Minor Scale



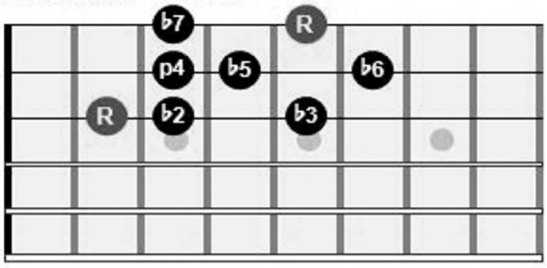
Mixolydian Scale



Phrygian Scale

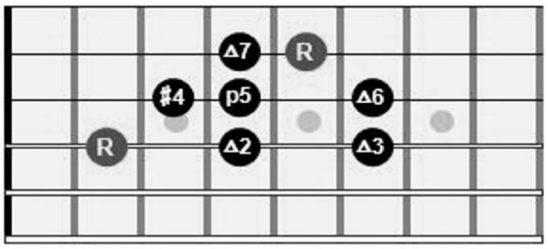


Locrian Scale

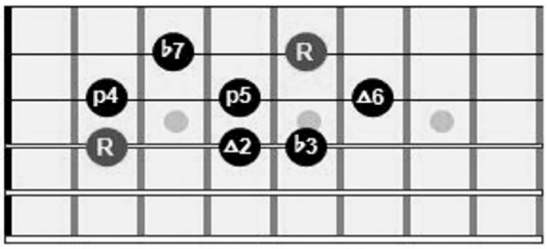


Diatonic Scales - String 4
Ascending

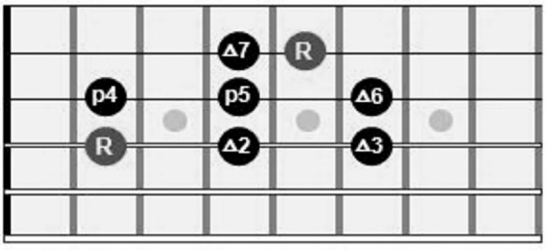
Lydian Scale



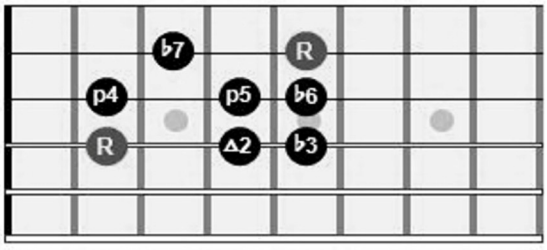
Dorian Scale



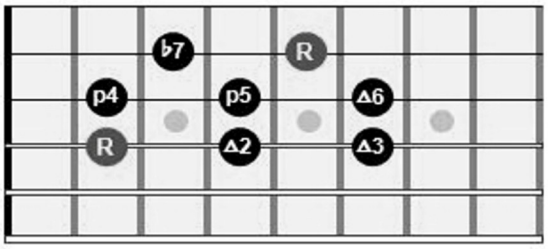
Ionian/Major Scale



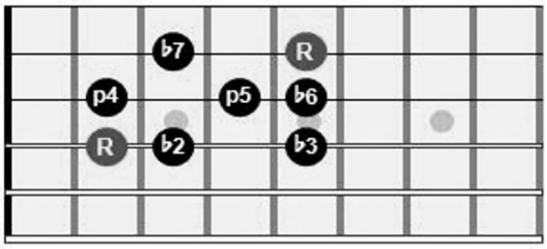
Aeolian/Minor Scale



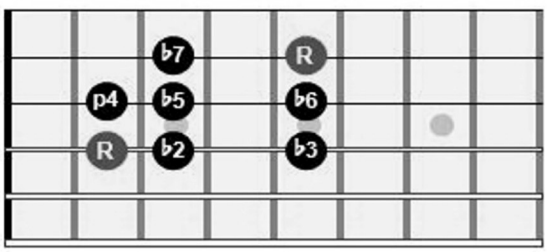
Mixolydian Scale



Phrygian Scale

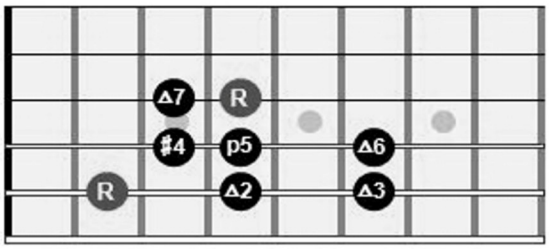


Locrian Scale

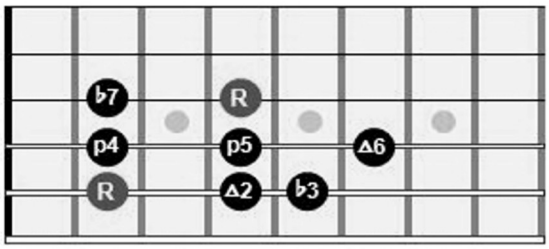


Diatonic Scales - String 5
Ascending

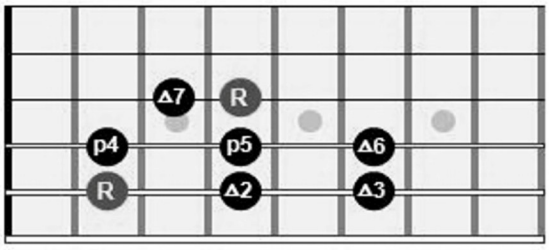
Lydian Scale



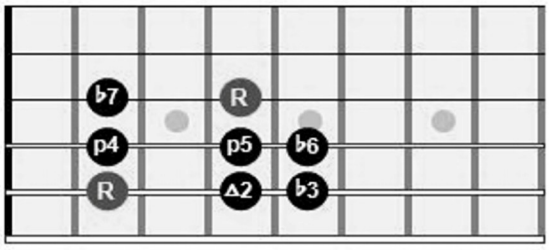
Dorian Scale



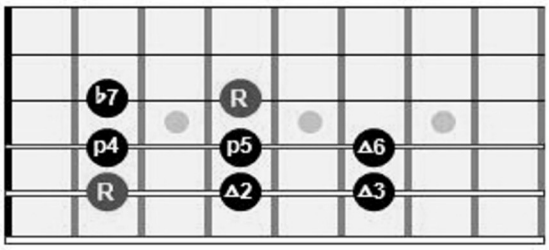
Ionian/Major Scale



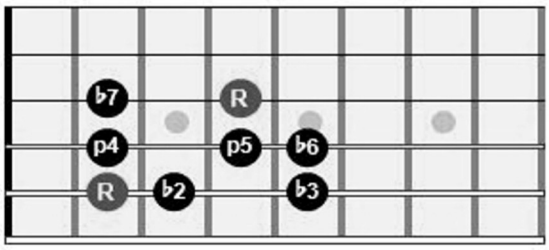
Aeolian/Minor Scale



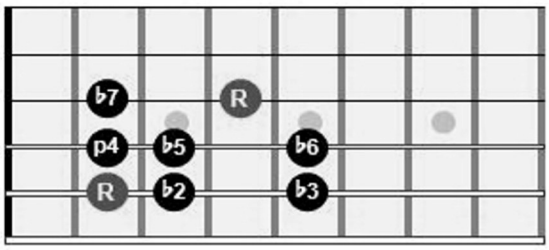
Mixolydian Scale



Phrygian Scale

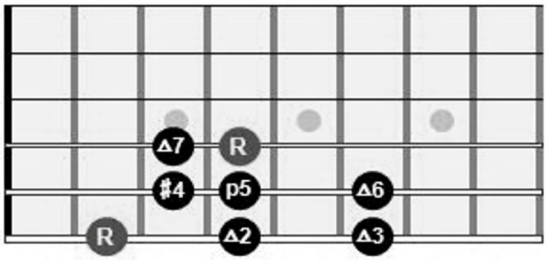


Locrian Scale

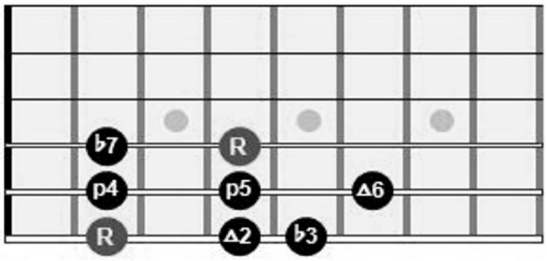


Diatonic Scales - String 6
Ascending

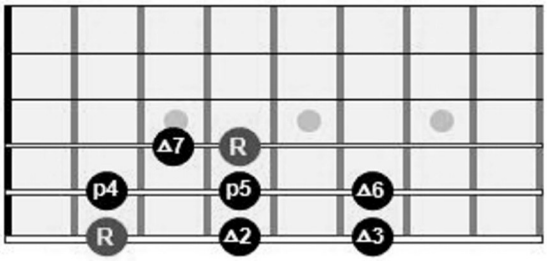
Lydian Scale



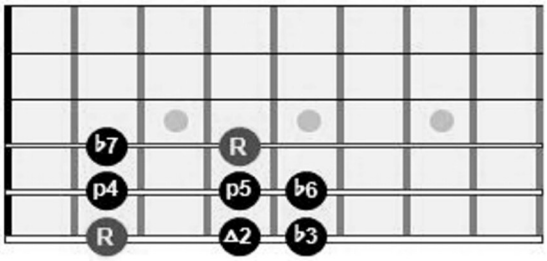
Dorian Scale



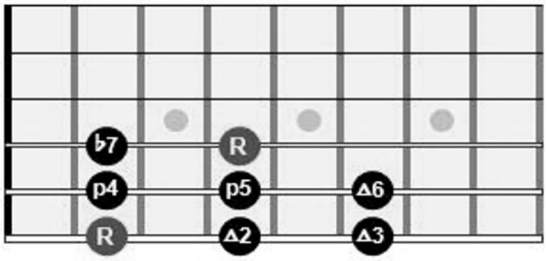
Ionian/Major Scale



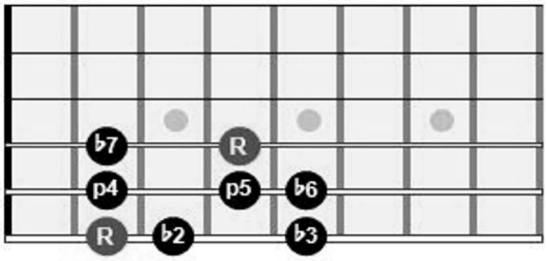
Aeolian/Minor Scale



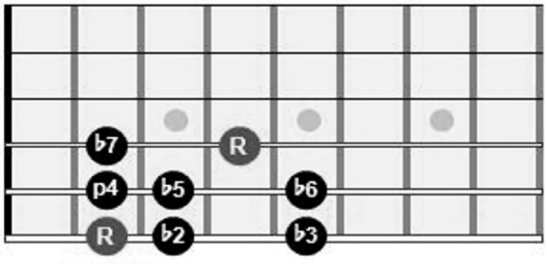
Mixolydian Scale



Phrygian Scale

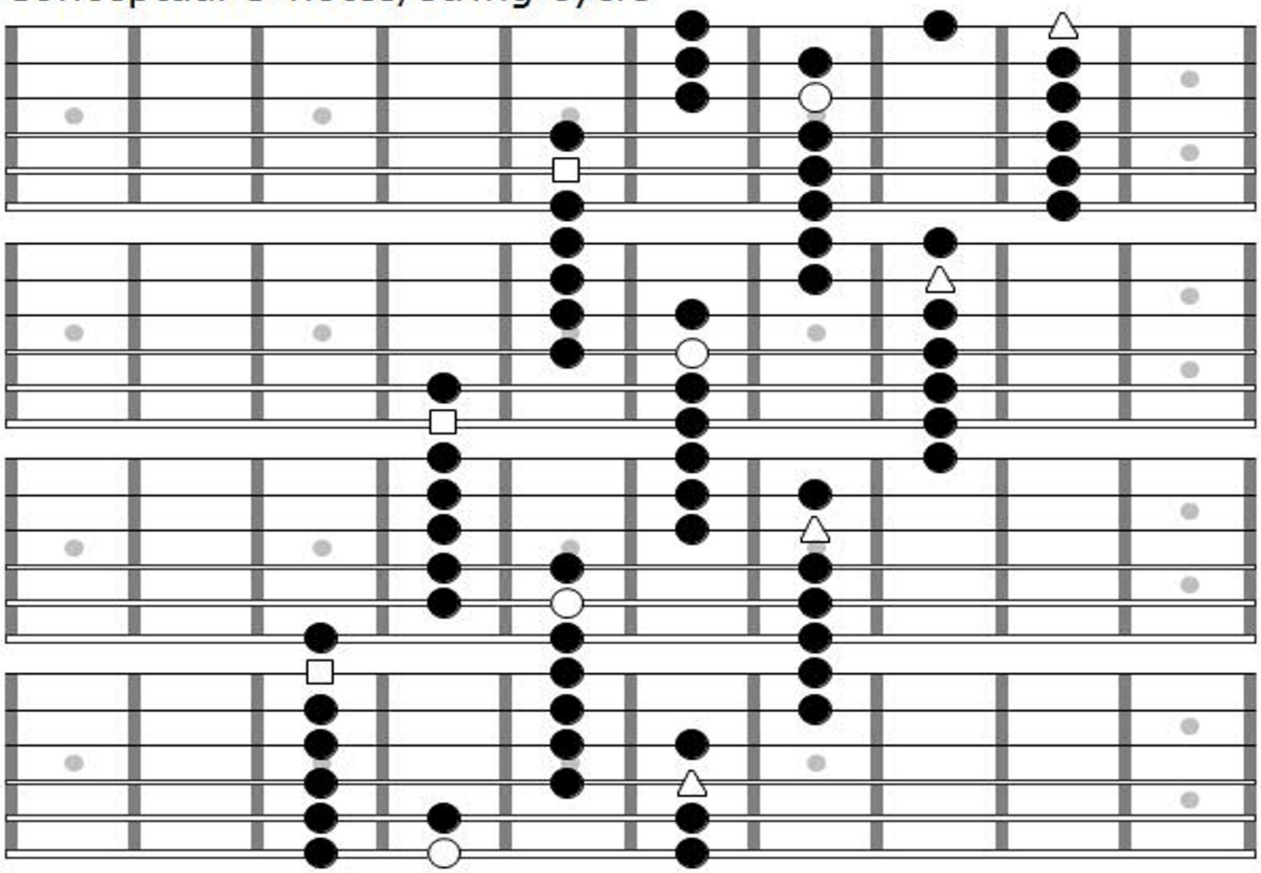


Locrian Scale



Diatonic Scale Cycle:
Conceptual

Conceptual 3-notes/string cycle



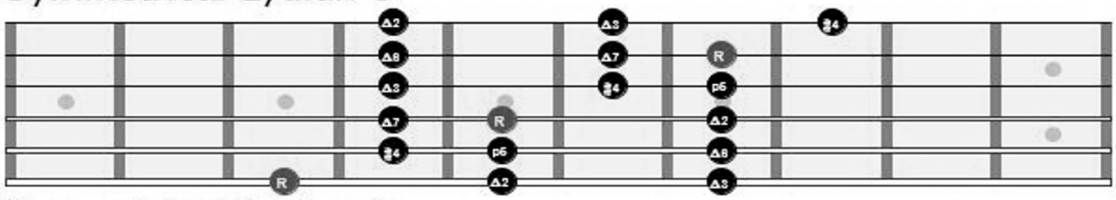
Imagine these four necks as though they were one very wide neck symmetrically tuned in 4ths.

Hollow notes represent major scale degree 1, with each shape representing a different relative position within the scale pattern.

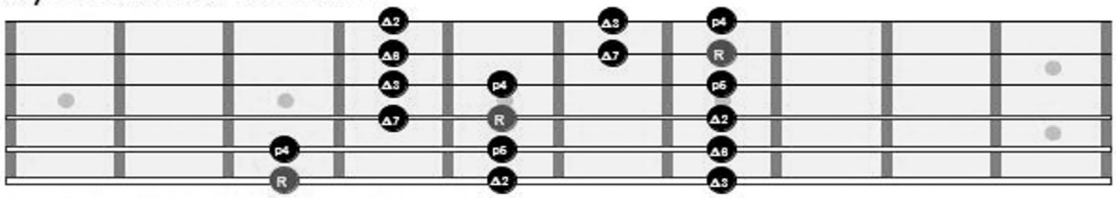
Square = Finger 1
Circle = Finger 2 or 3
Triangle = Finger 4

Diatonic Scale Cycle:
Symmetrical 4ths Tuning

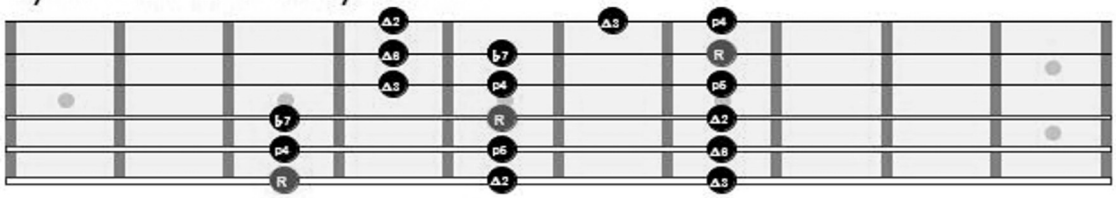
Symmetrical Lydian 6



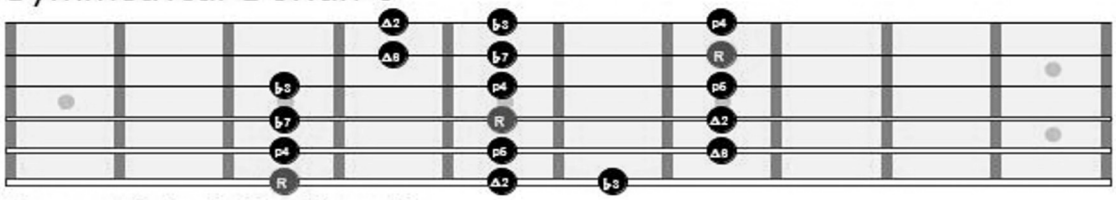
Symmetrical Ionian 6



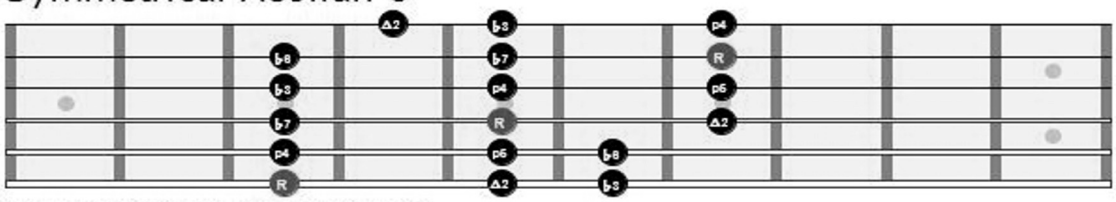
Symmetrical Mixolydian 6



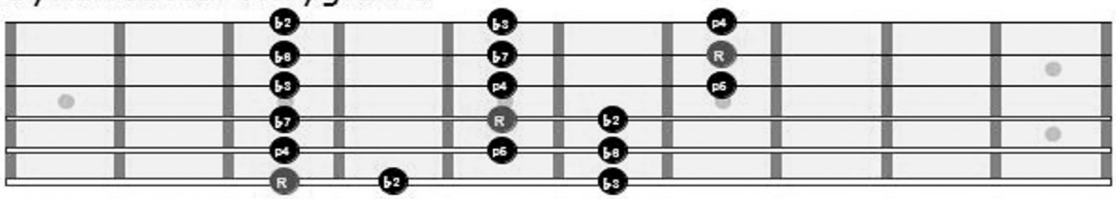
Symmetrical Dorian 6



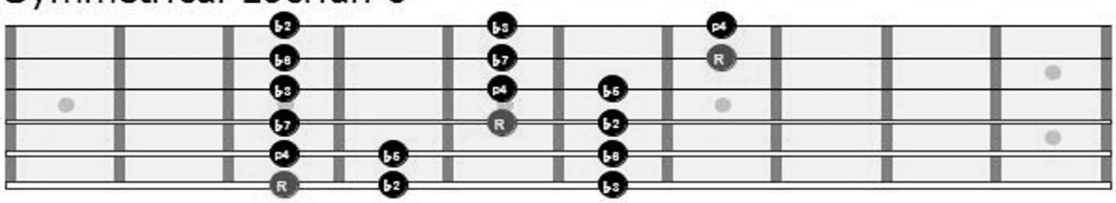
Symmetrical Aeolian 6



Symmetrical Phrygian 6

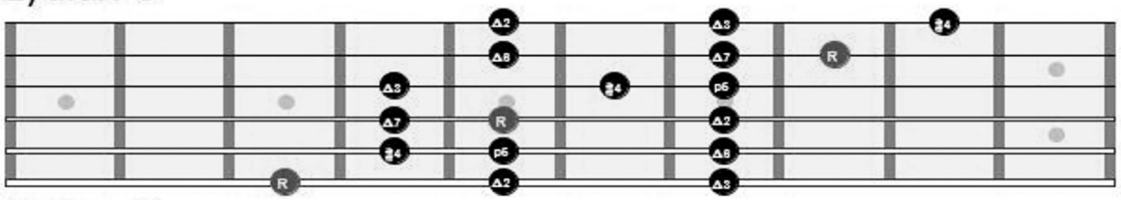


Symmetrical Locrian 6

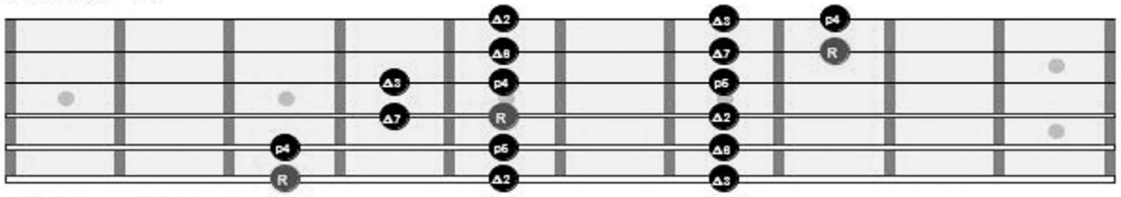


Diatonic Scale Cycle:
Actual

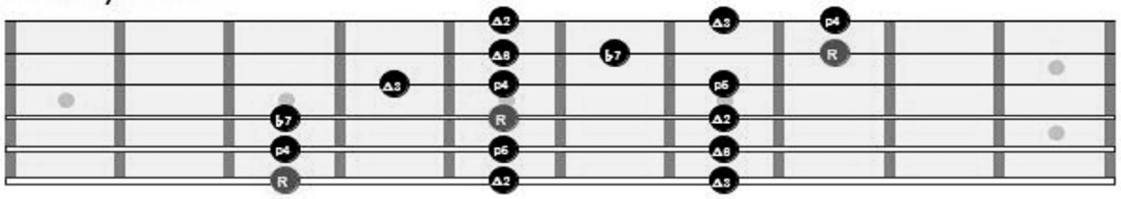
Lydian 6



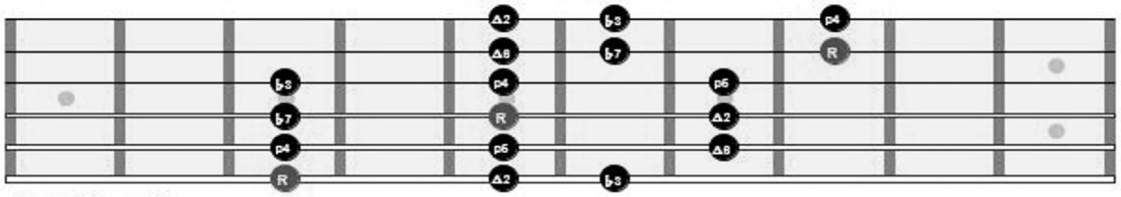
Ionian 6



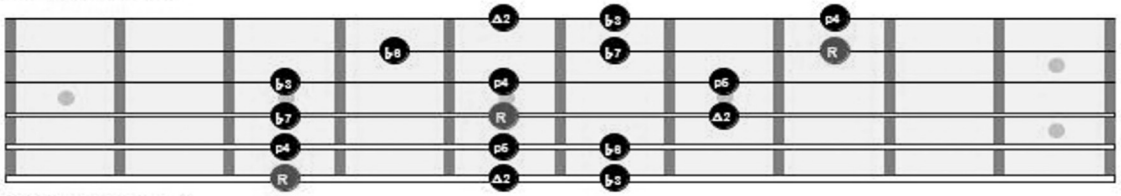
Mixolydian 6



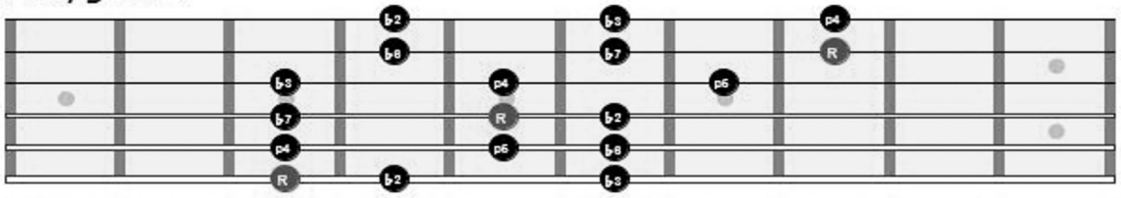
Dorian 6



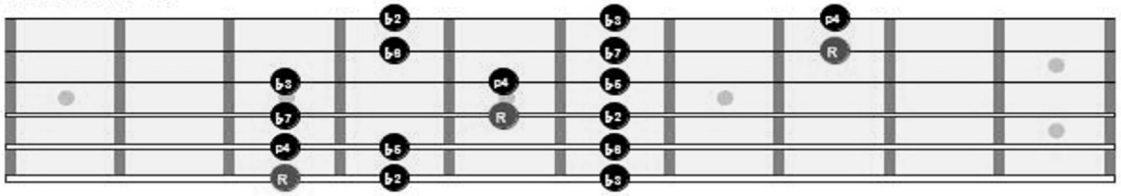
Aeolian 6



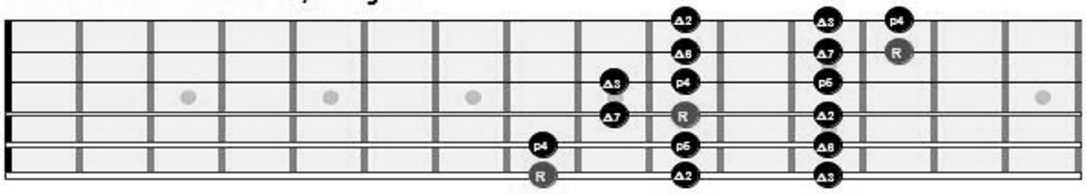
Phrygian 6



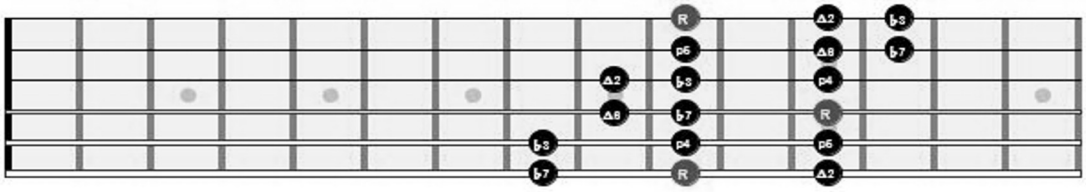
Locrian 6



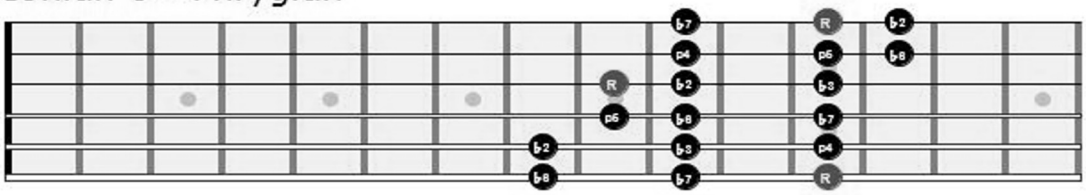
Ionian 6 - Ionian/Major



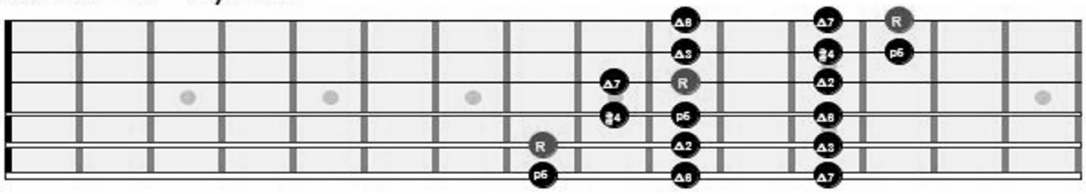
Ionian 6 - Dorian



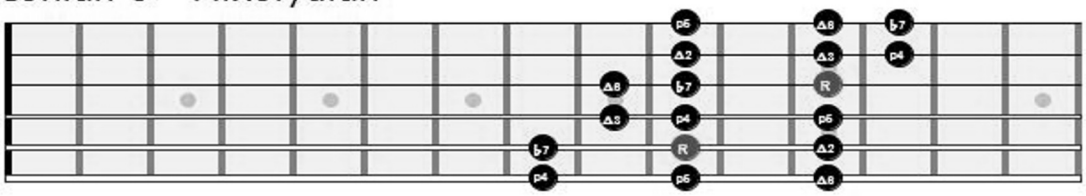
Ionian 6 - Phrygian



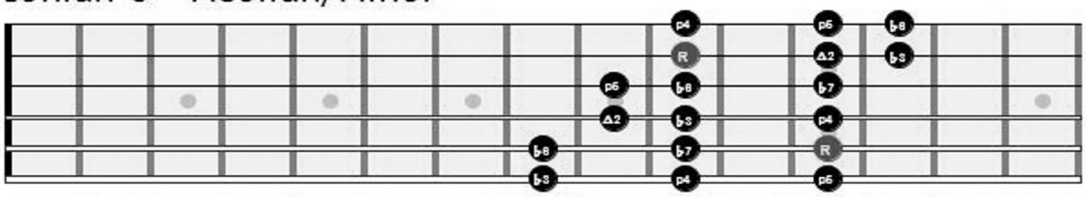
Ionian 6 - Lydian



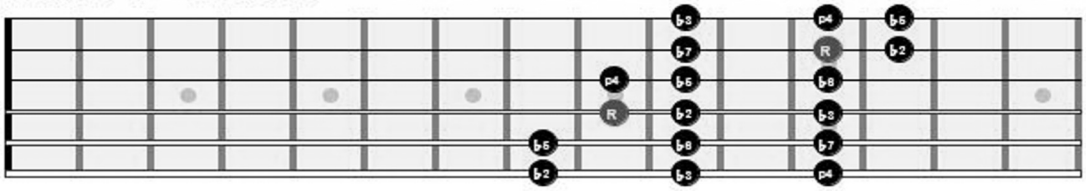
Ionian 6 - Mixolydian



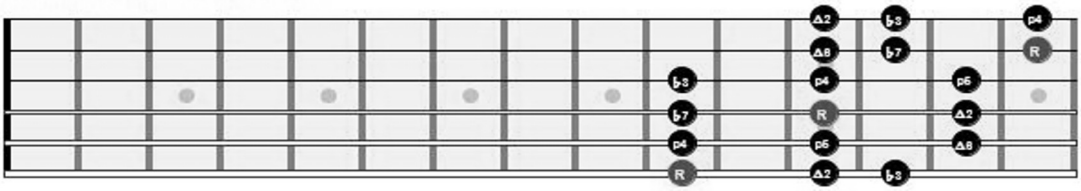
Ionian 6 - Aeolian/Minor



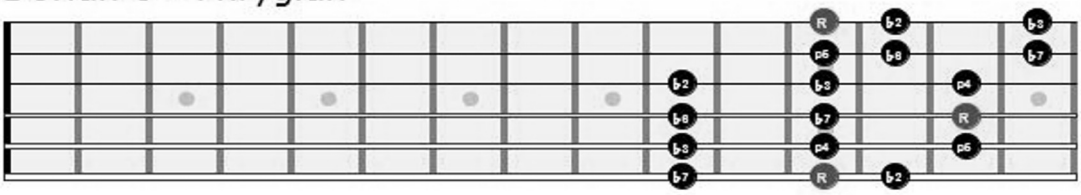
Ionian 6 - Locrian



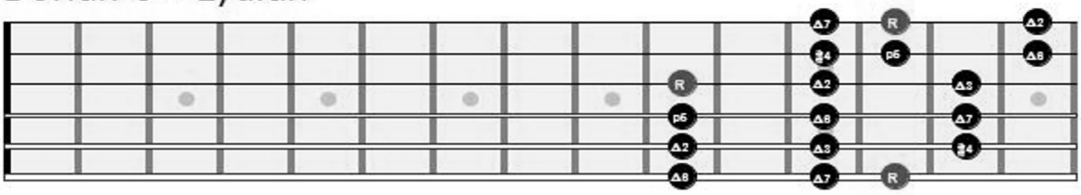
Dorian 6 - Dorian



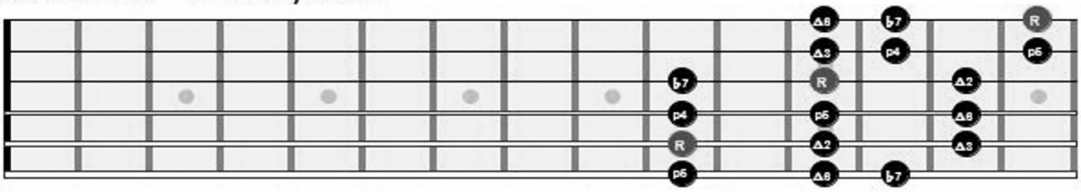
Dorian 6 - Phrygian



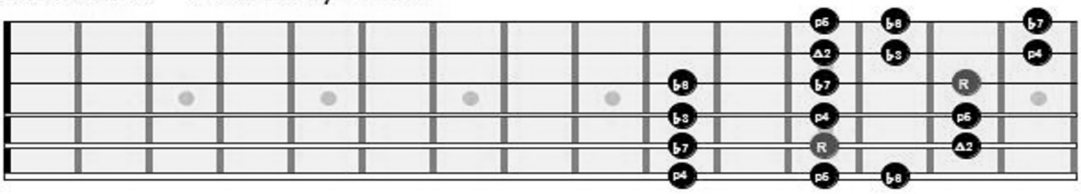
Dorian 6 - Lydian



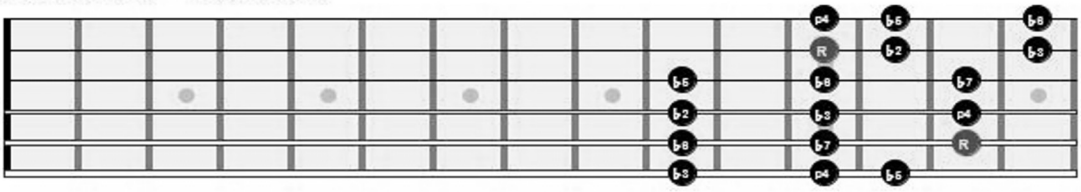
Dorian 6 - Mixolydian



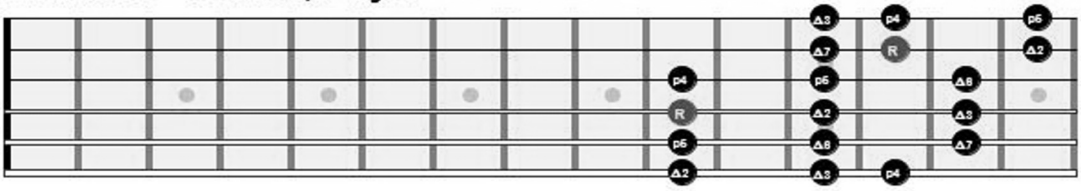
Dorian 6 - Aeolian/Minor



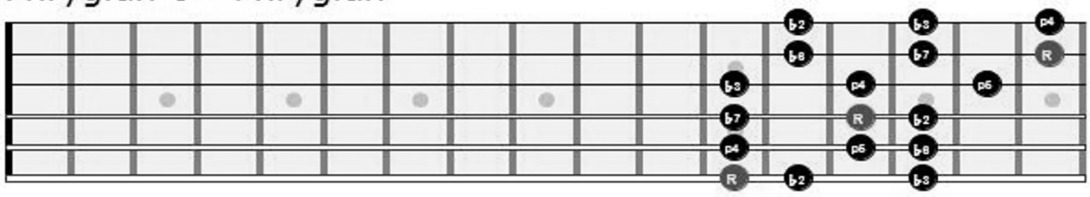
Dorian 6 - Locrian



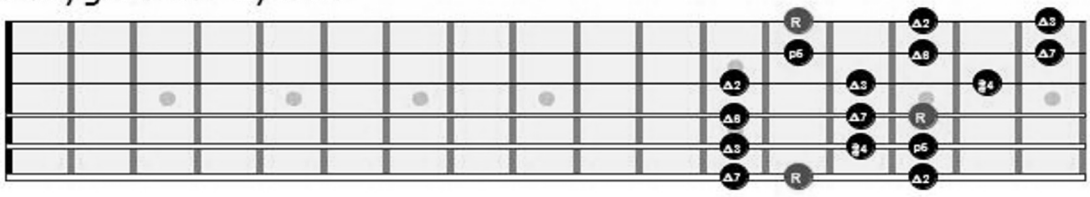
Dorian 6 - Ionian/Major



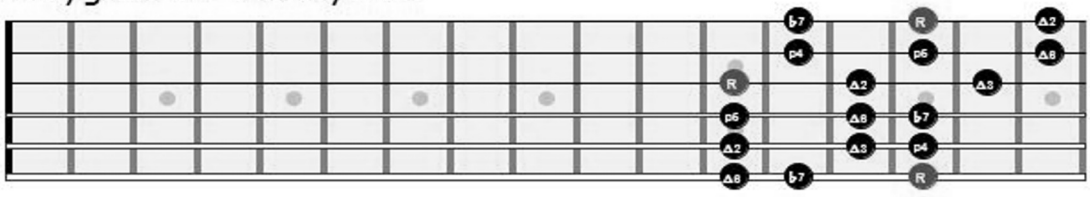
Phrygian 6 - Phrygian



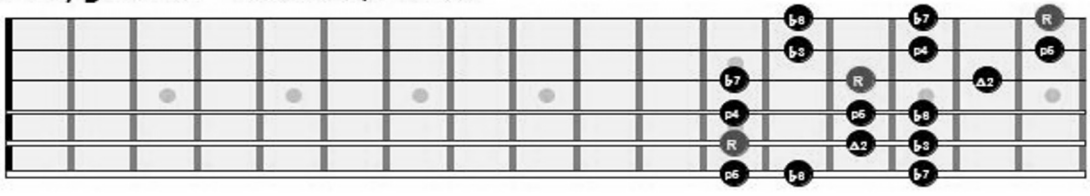
Phrygian 6 - Lydian



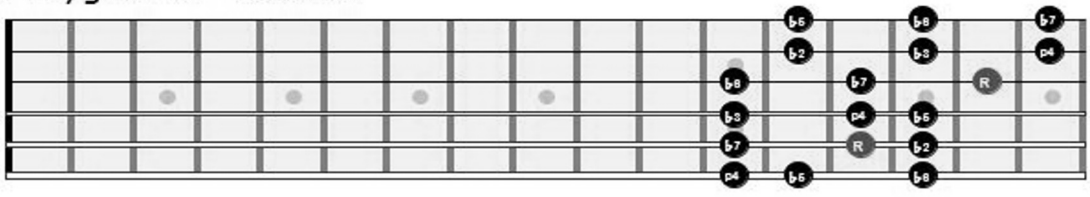
Phrygian 6 - Mixolydian



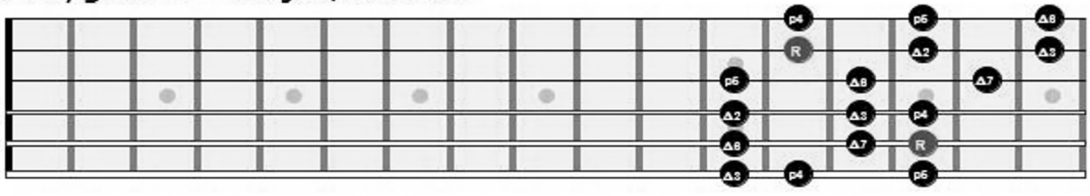
Phrygian 6 - Aeolian/Minor



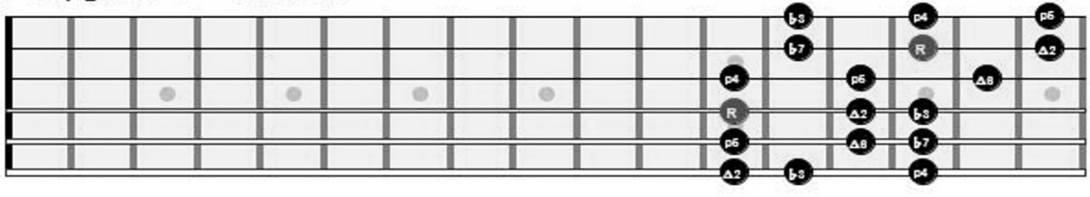
Phrygian 6 - Locrian



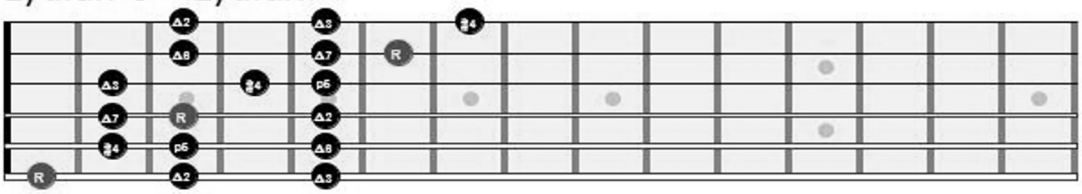
Phrygian 6 - Major/Ionian



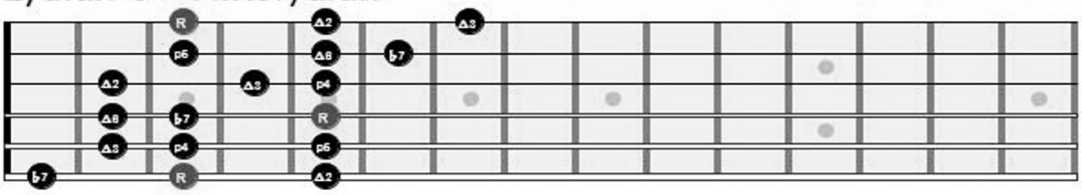
Phrygian 6 - Dorian



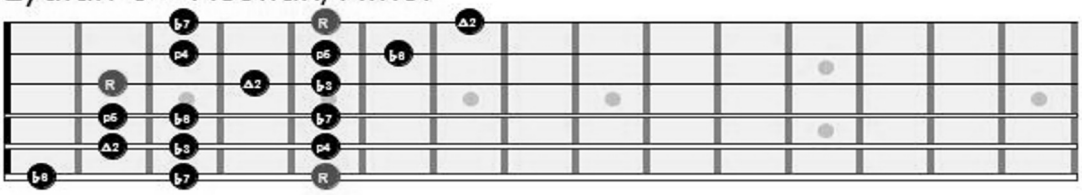
Lydian 6 - Lydian



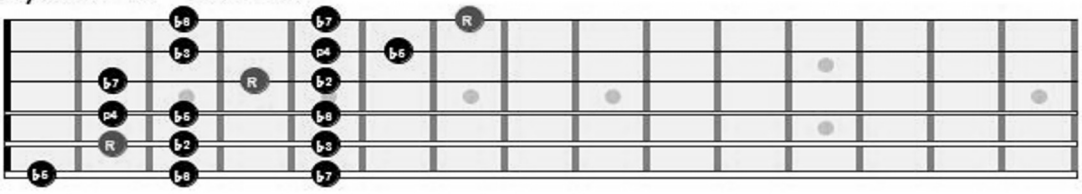
Lydian 6 - Mixolydian



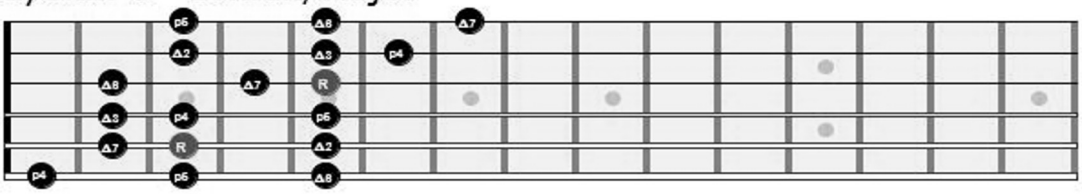
Lydian 6 - Aeolian/Minor



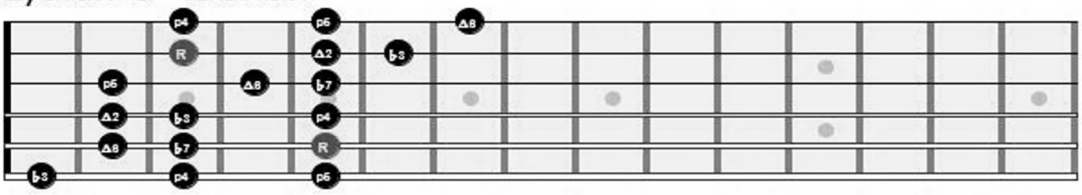
Lydian 6 - Locrian



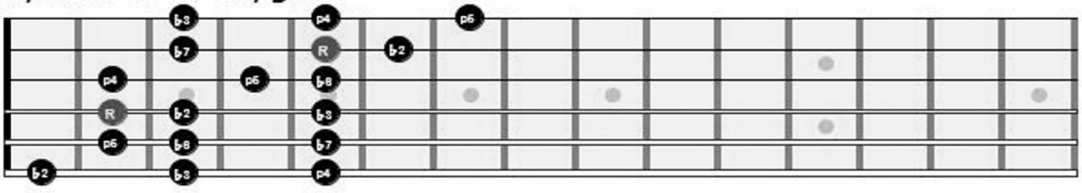
Lydian 6 - Ionian/Major



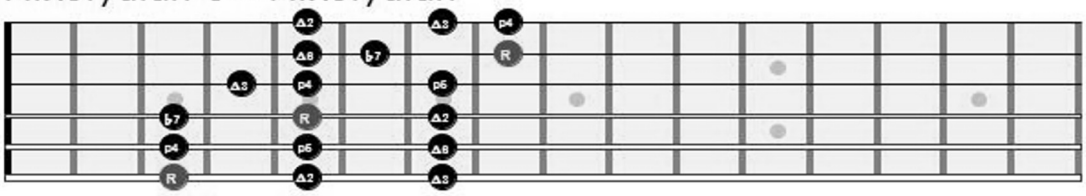
Lydian 6 - Dorian



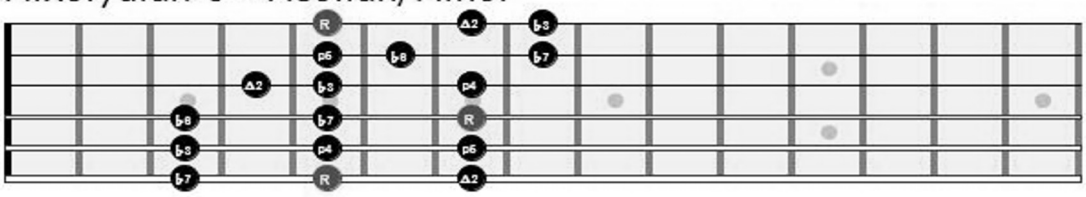
Lydian 6 - Phrygian



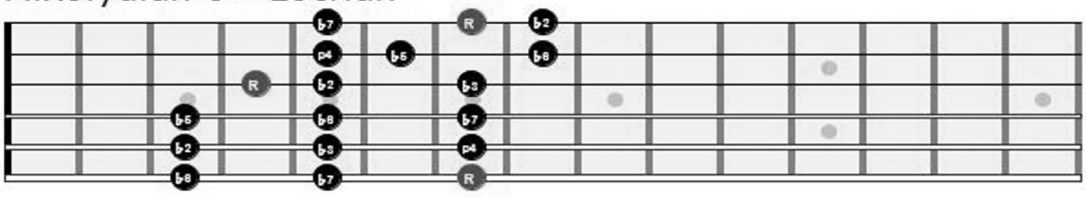
Mixolydian 6 - Mixolydian



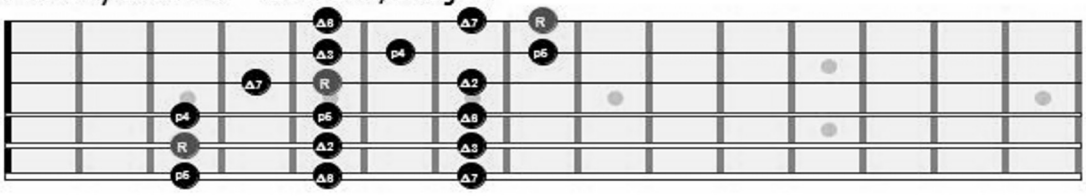
Mixolydian 6 - Aeolian/Minor



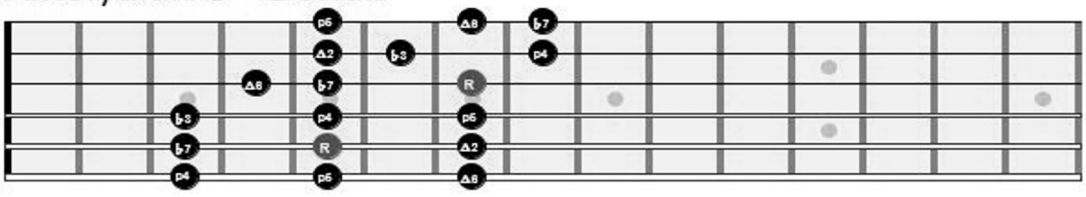
Mixolydian 6 - Locrian



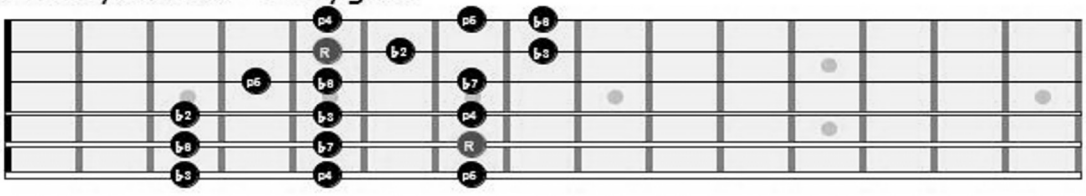
Mixolydian 6 - Ionain/Major



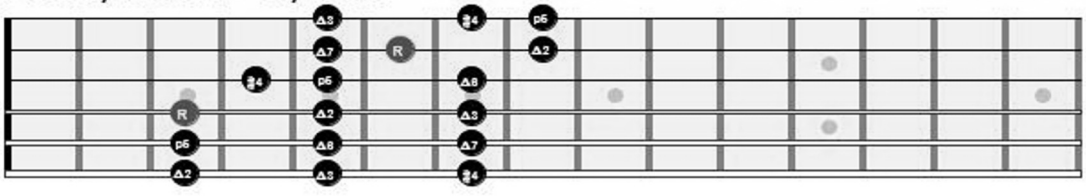
Mixolydian 6 - Dorian



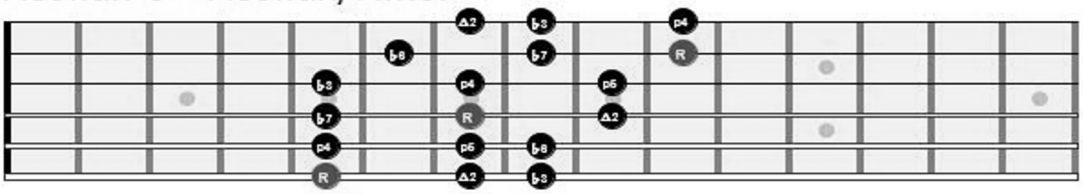
Mixolydian 6 - Phrygian



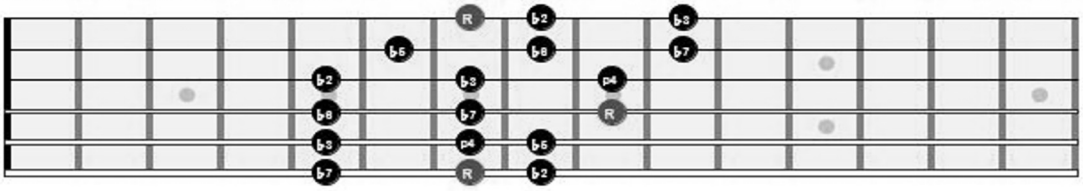
Mixolydian 6 - Lydian



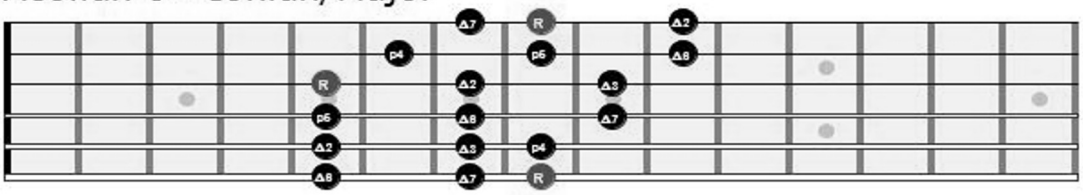
Aeolian 6 - Aeolian/Minor



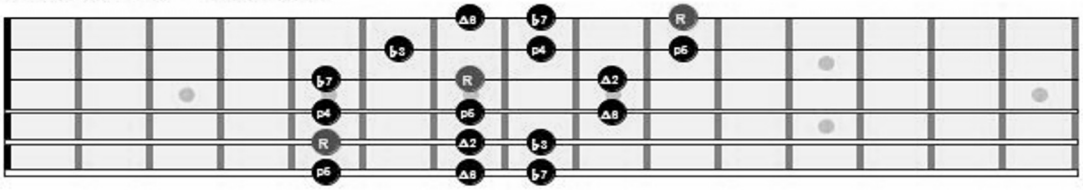
Aeolian 6 - Locrian



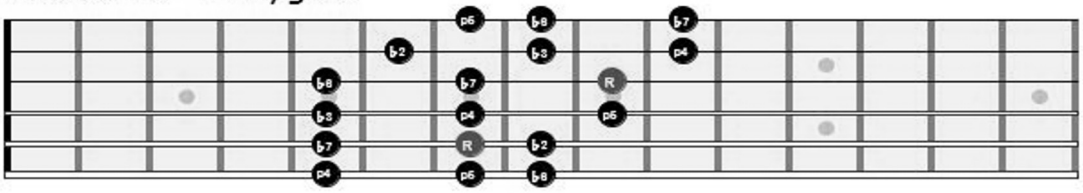
Aeolian 6 - Ionian/Major



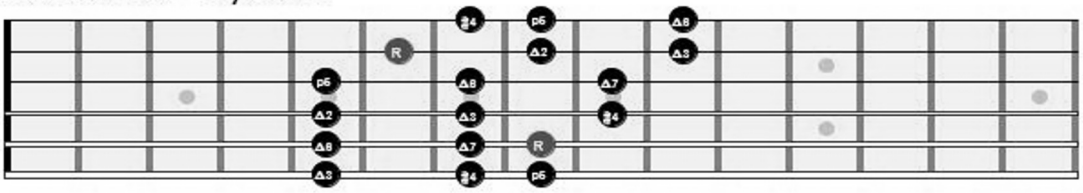
Aeolian 6 - Dorian



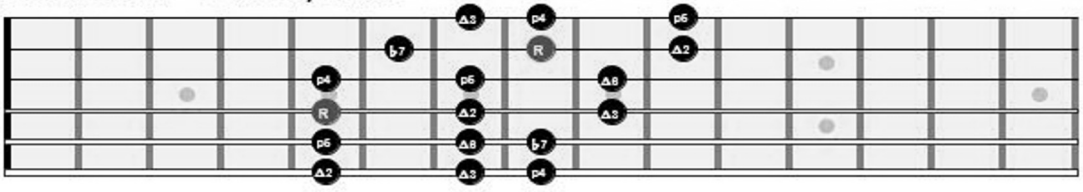
Aeolian 6 - Phrygian



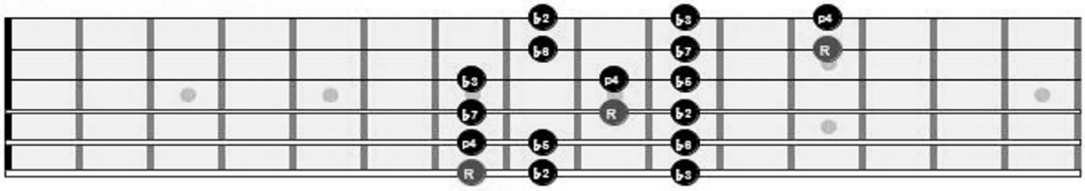
Aeolian 6 - Lydian



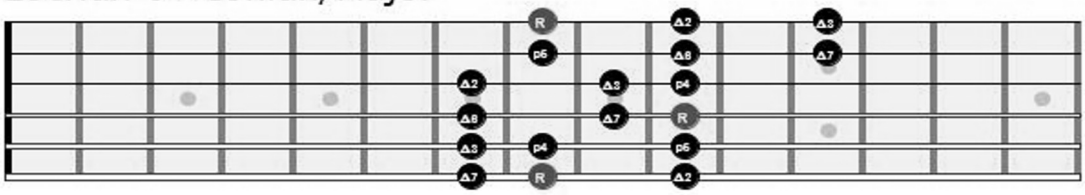
Aeolian 6 - Mixolydian



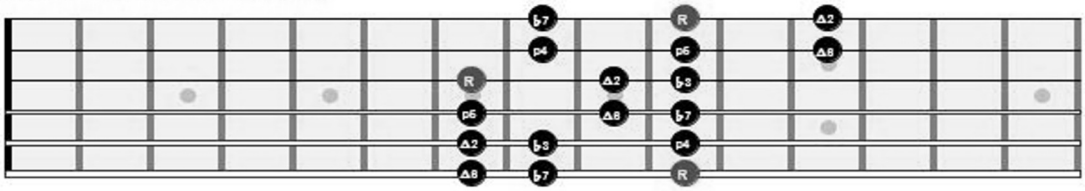
Locrian 6 - Locrian



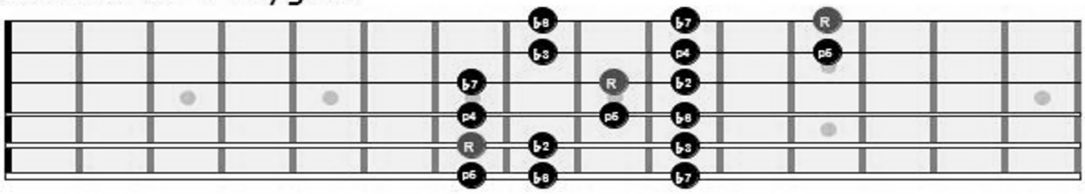
Locrian 6 - Ionian/Major



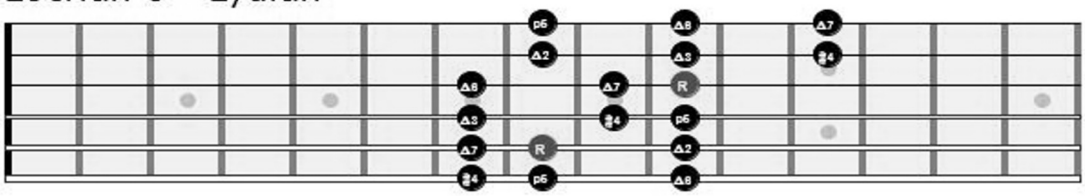
Locrian 6 - Dorian



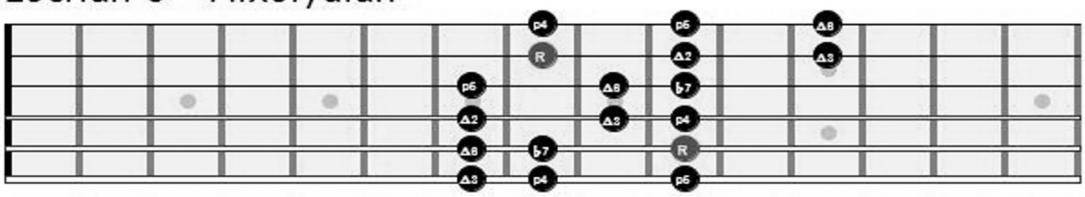
Locrian 6 - Phrygian



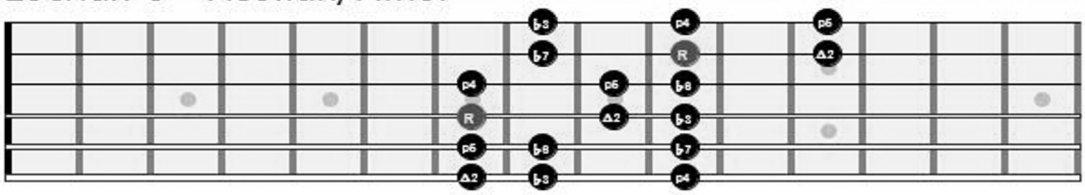
Locrian 6 - Lydian



Locrian 6 - Mixolydian



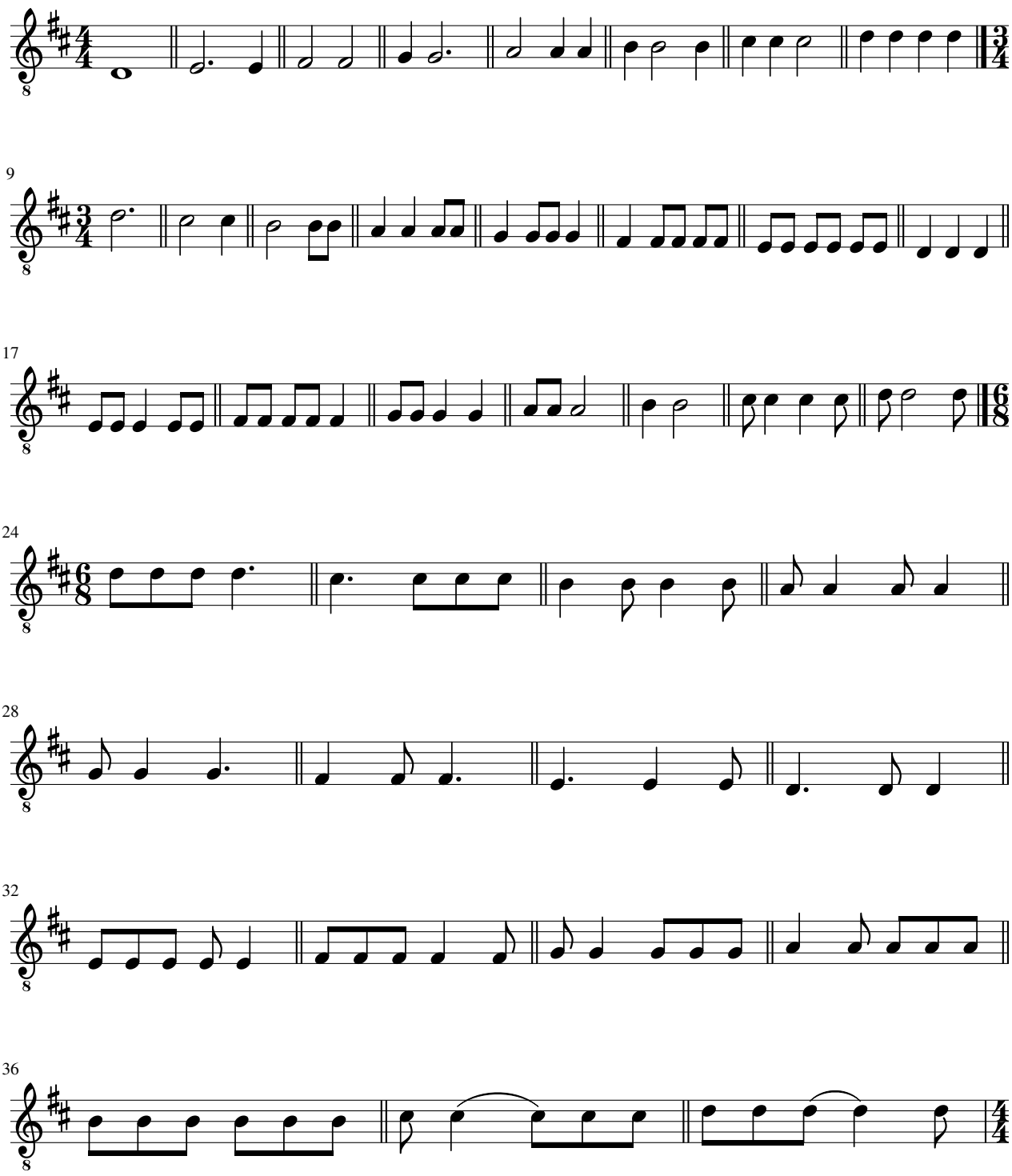
Locrian 6 - Aeolian/Minor

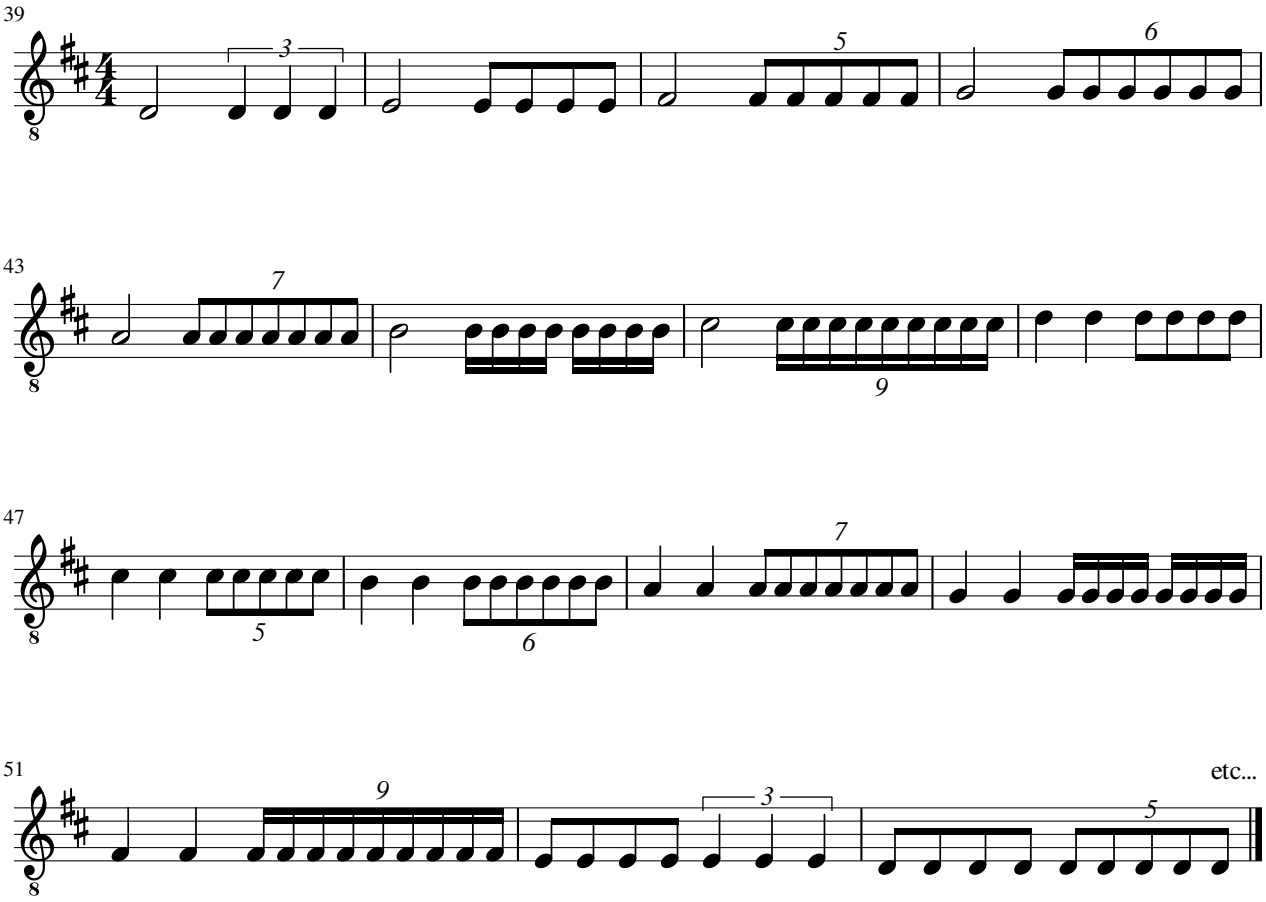


Rhythms

Scale Practice Patterns

Nebelung

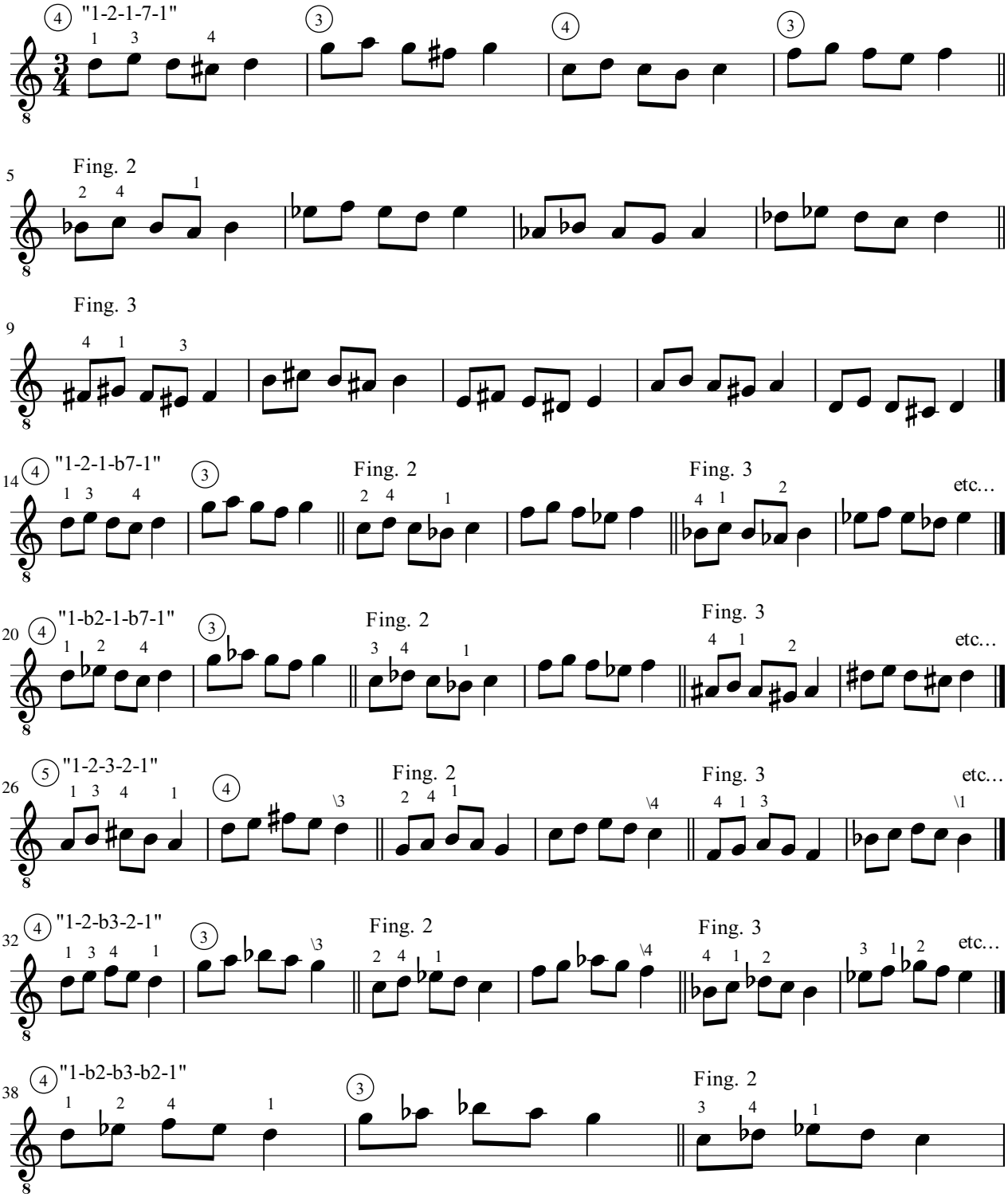


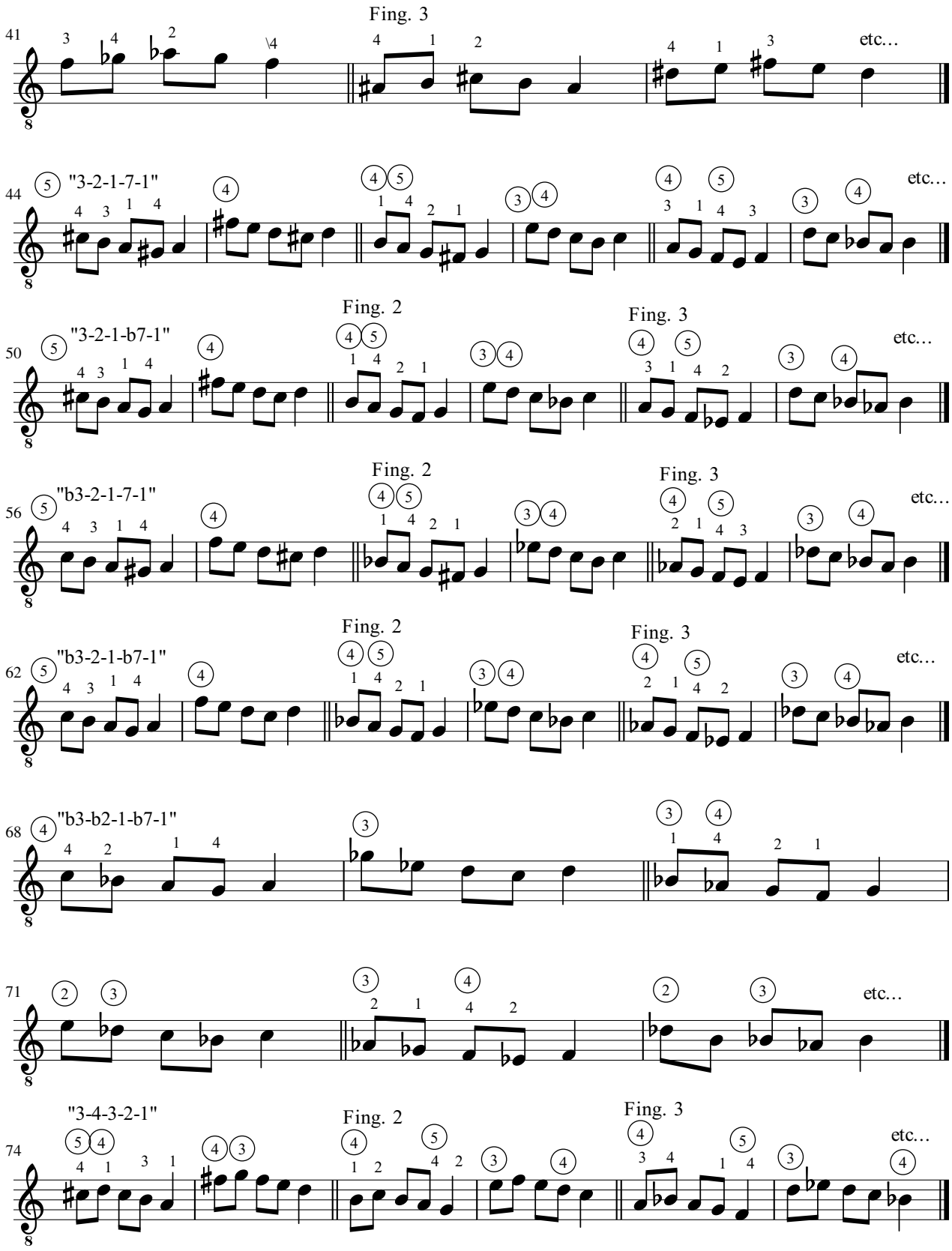

39
3
5
6
43
7
9
47
7
5
6
51
9
3
5
etc...

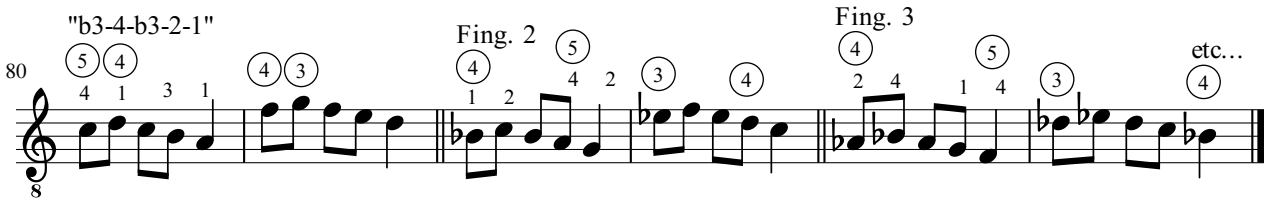
Riffing 2nds

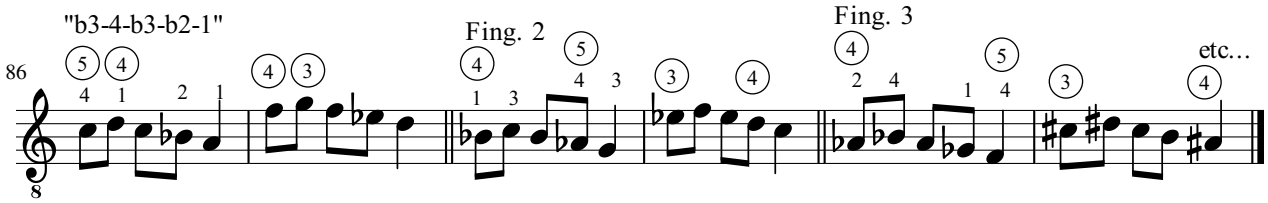
Circle of 5ths

Nebelung




Fing. 3
41
etc…
"3-2-1-7-1"
44
etc…
Fing. 2
Fing. 3
"3-2-1-b7-1"
50
etc…
Fing. 2
Fing. 3
"b3-2-1-7-1"
56
etc…
Fing. 2
Fing. 3
"b3-2-1-b7-1"
62
etc…
"b3-b2-1-b7-1"
68
71
etc…
"3-4-3-2-1"
Fing. 2
Fing. 3
74
etc…

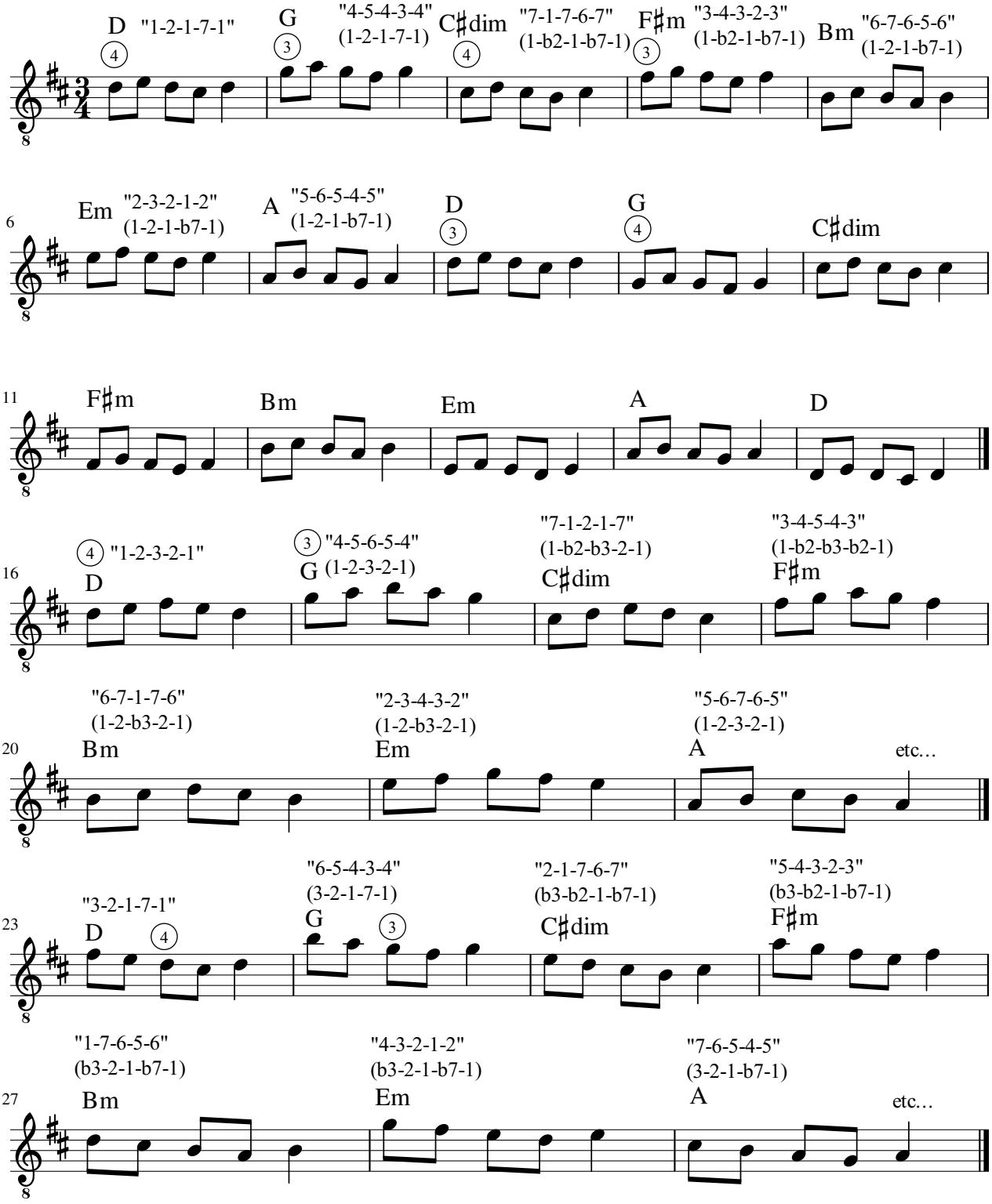

"b3-4-b3-2-1"
Fing. 2
Fing. 3
etc…
80

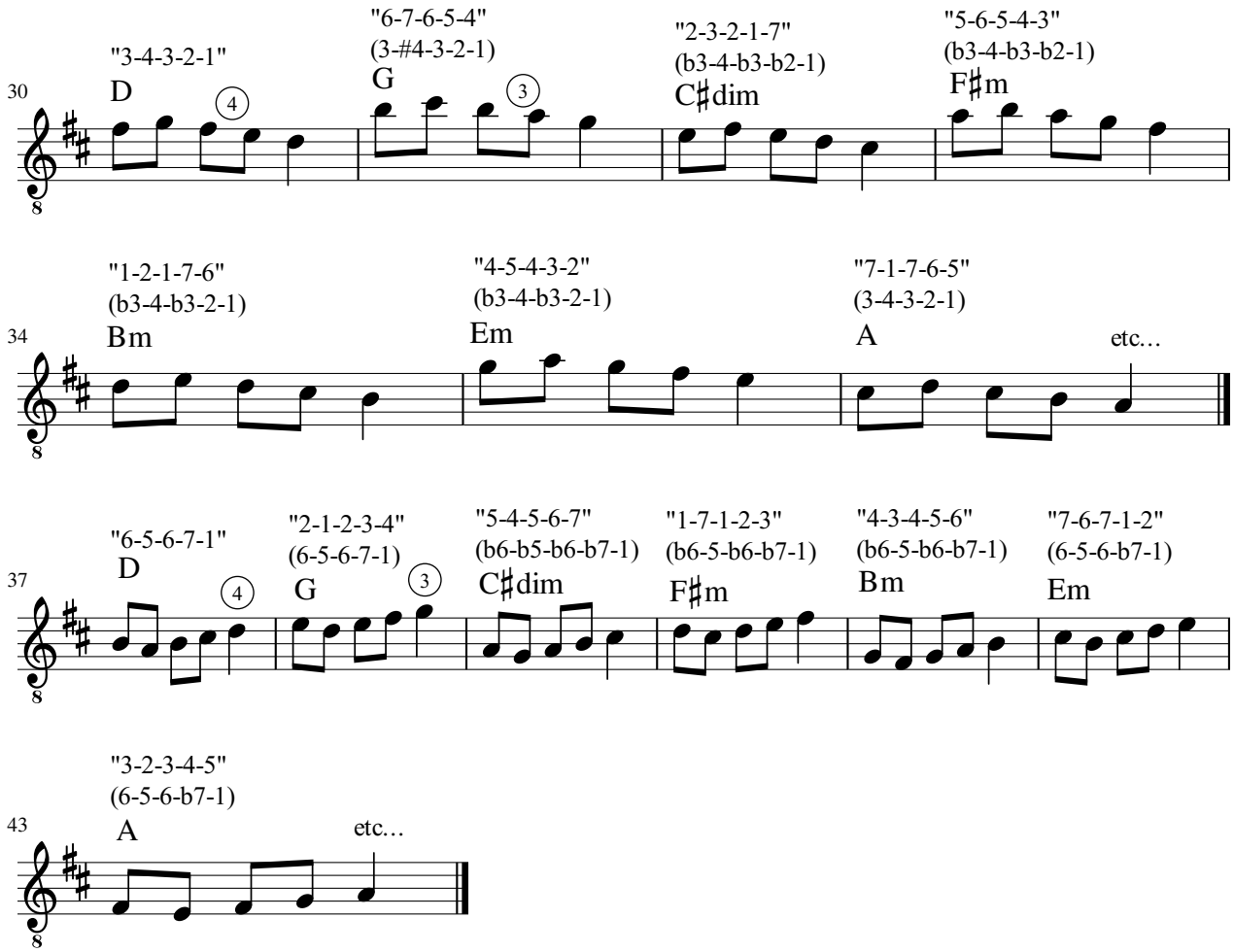

"b3-4-b3-b2-1"
Fing. 2
Fing. 3
etc…
86

Riffing 2nds

Scale 5ths

Nebelung

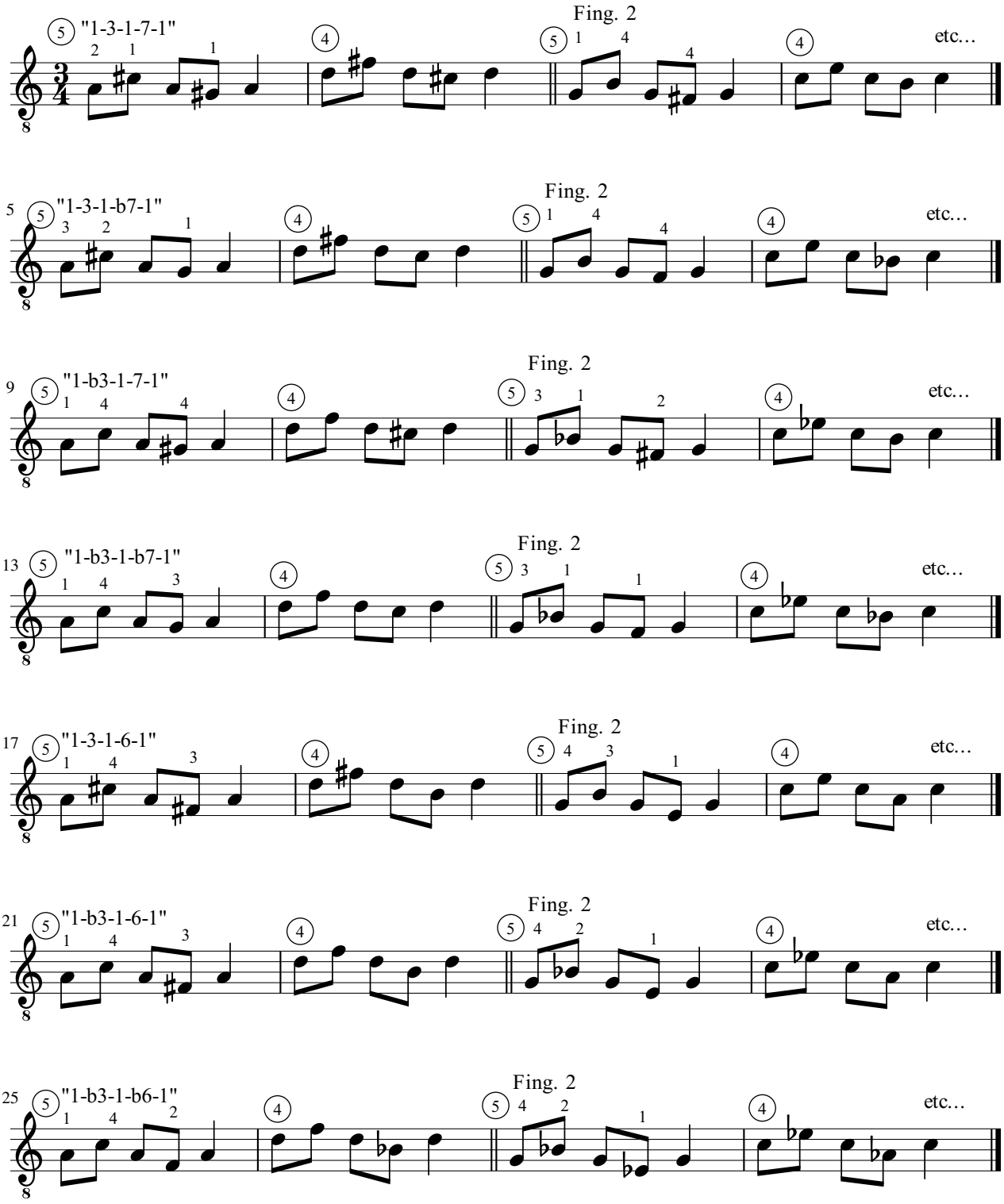


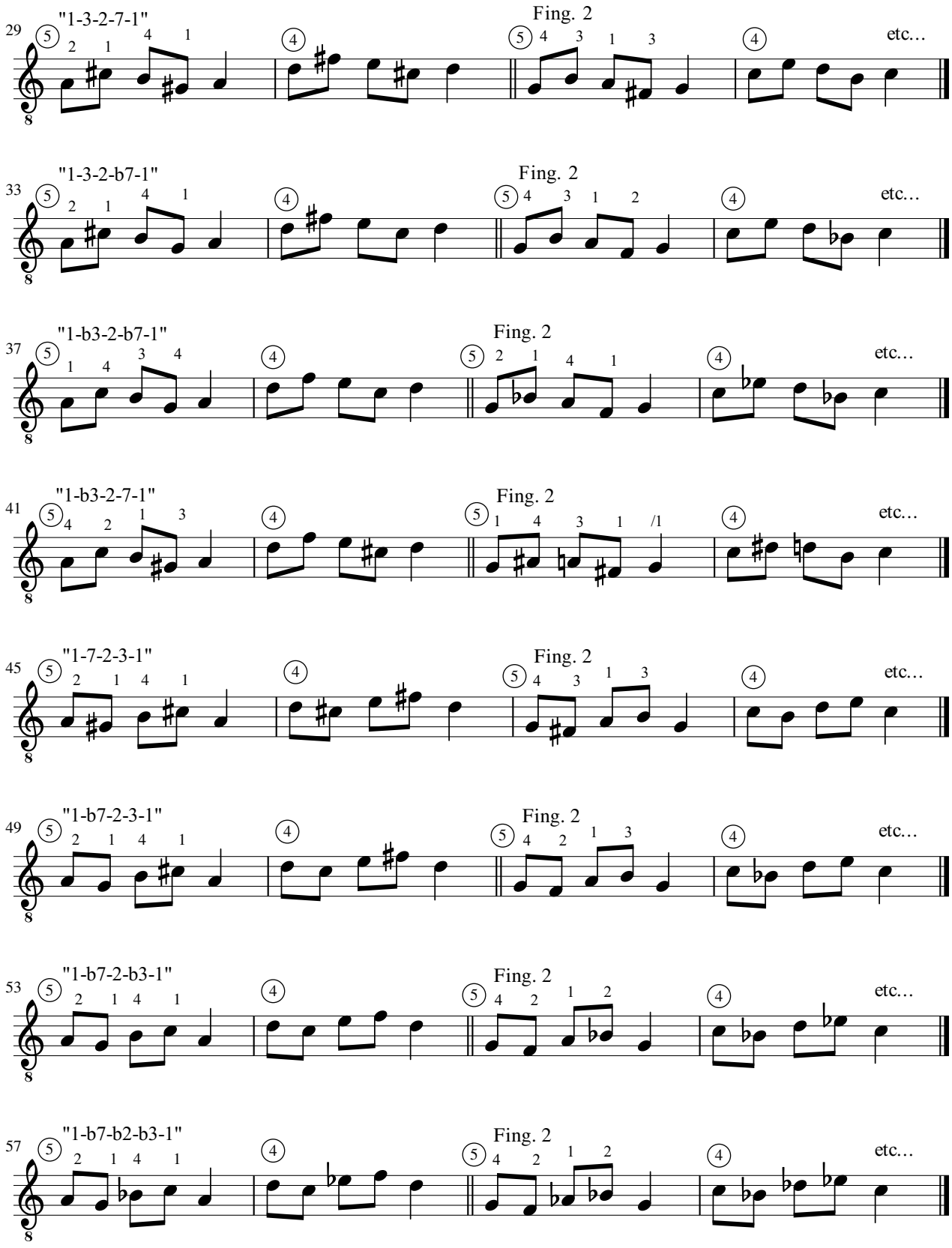

30
"3-4-3-2-1"
D
4
"6-7-6-5-4"
(3-#4-3-2-1)
G
3
"2-3-2-1-7"
(b3-4-b3-b2-1)
C♯dim
"5-6-5-4-3"
(b3-4-b3-b2-1)
F♯m
34
"1-2-1-7-6"
(b3-4-b3-2-1)
Bm
"4-5-4-3-2"
(b3-4-b3-2-1)
Em
"7-1-7-6-5"
(3-4-3-2-1)
A
etc...
37
"6-5-6-7-1"
D
4
"2-1-2-3-4"
(6-5-6-7-1)
G
3
"5-4-5-6-7"
(b6-b5-b6-b7-1)
C♯dim
"1-7-1-2-3"
(b6-5-b6-b7-1)
F♯m
"4-3-4-5-6"
(b6-5-b6-b7-1)
Bm
"7-6-7-1-2"
(6-5-6-b7-1)
Em
43
"3-2-3-4-5"
(6-5-6-b7-1)
A
etc...

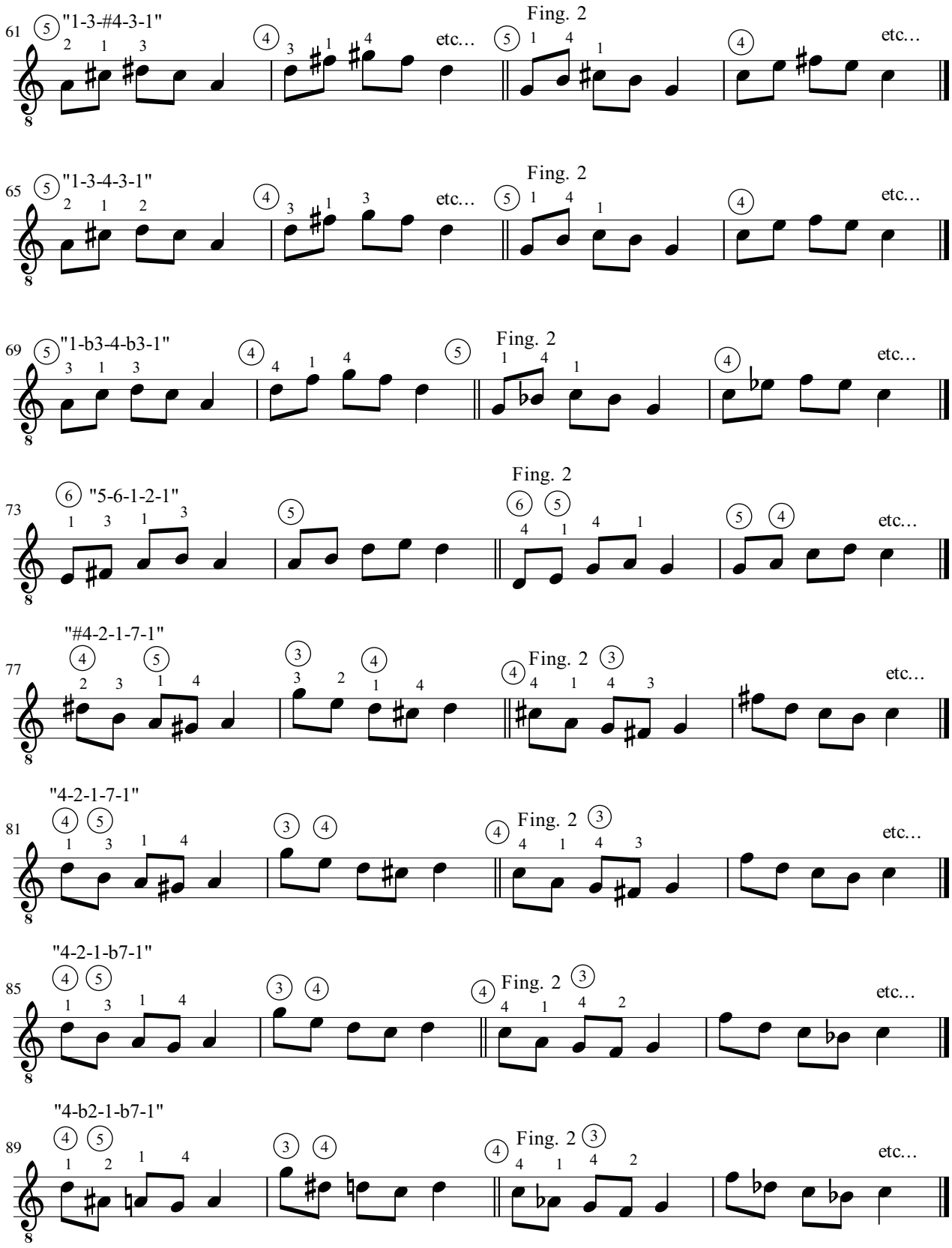
Riffing 3rds

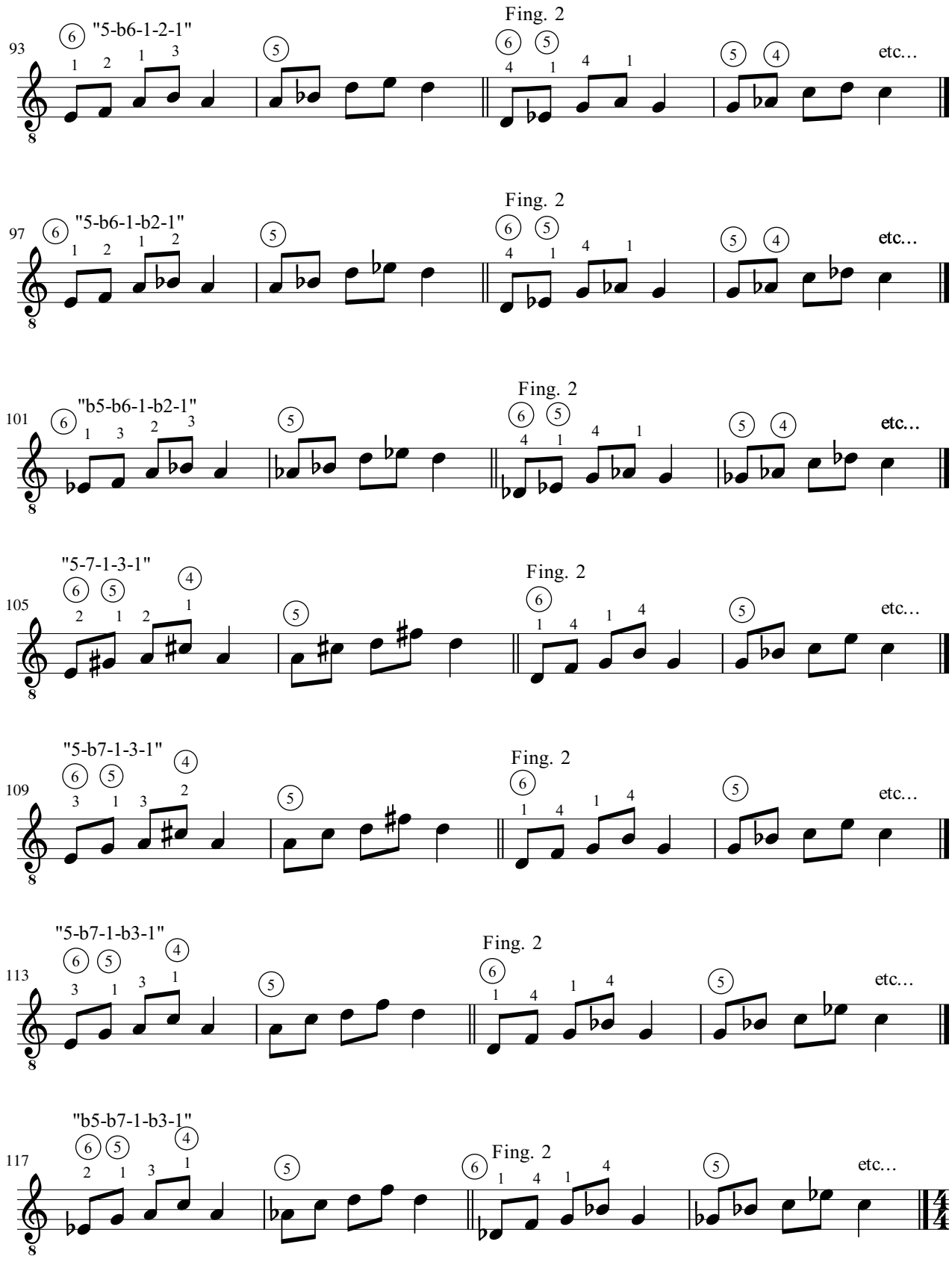
Circle of 5ths

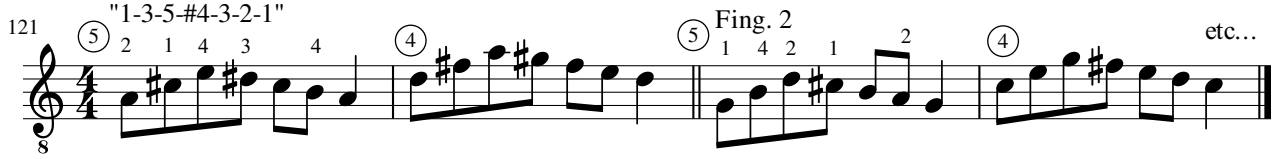
Nebelung

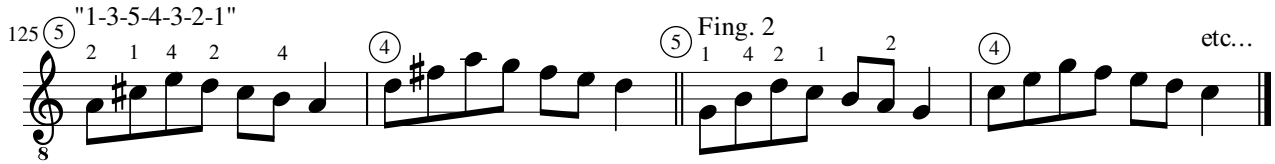


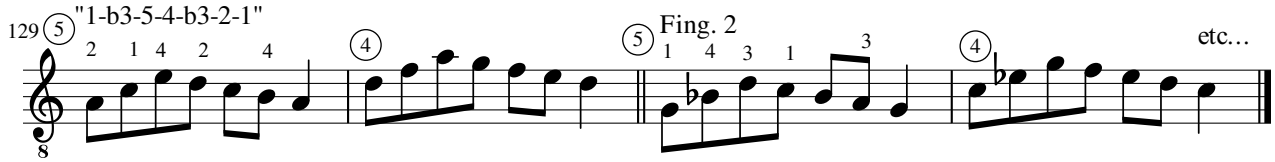

29
"1-3-2-7-1"
Fing. 2
etc…
33
"1-3-2-b7-1"
Fing. 2
etc…
37
"1-b3-2-b7-1"
Fing. 2
etc…
41
"1-b3-2-7-1"
Fing. 2
etc…
45
"1-7-2-3-1"
Fing. 2
etc…
49
"1-b7-2-3-1"
Fing. 2
etc…
53
"1-b7-2-b3-1"
Fing. 2
etc…
57
"1-b7-b2-b3-1"
Fing. 2
etc…

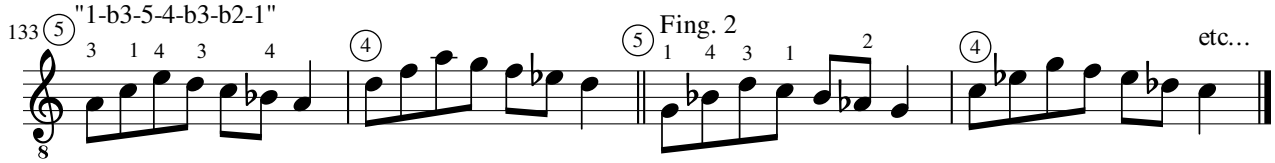

61
"1-3-#4-3-1"
etc…
Fing. 2
etc…
65
"1-3-4-3-1"
etc…
Fing. 2
etc…
69
"1-b3-4-b3-1"
Fing. 2
etc…
73
"5-6-1-2-1"
Fing. 2
etc…
"#4-2-1-7-1"
77
Fing. 2
etc…
"4-2-1-7-1"
81
Fing. 2
etc…
"4-2-1-b7-1"
85
Fing. 2
etc…
"4-b2-1-b7-1"
89
Fing. 2
etc…

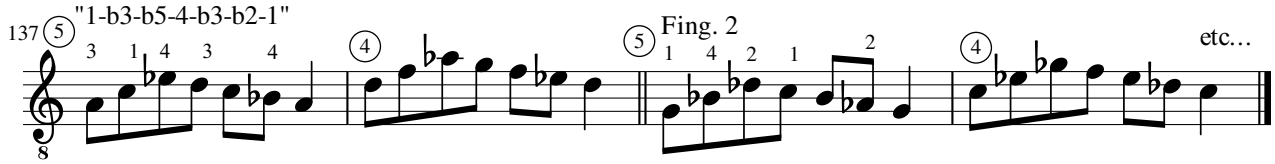

93
"5-b6-1-2-1"
Fing. 2
etc...
97
"5-b6-1-b2-1"
Fing. 2
etc...
101
"b5-b6-1-b2-1"
Fing. 2
etc...
105
"5-7-1-3-1"
Fing. 2
etc...
109
"5-b7-1-3-1"
Fing. 2
etc...
113
"5-b7-1-b3-1"
Fing. 2
etc...
117
"b5-b7-1-b3-1"
Fing. 2
etc...


121
"1-3-5-#4-3-2-1"
Fing. 2
etc…


125
"1-3-5-4-3-2-1"
Fing. 2
etc…


129
"1-b3-5-4-b3-2-1"
Fing. 2
etc…

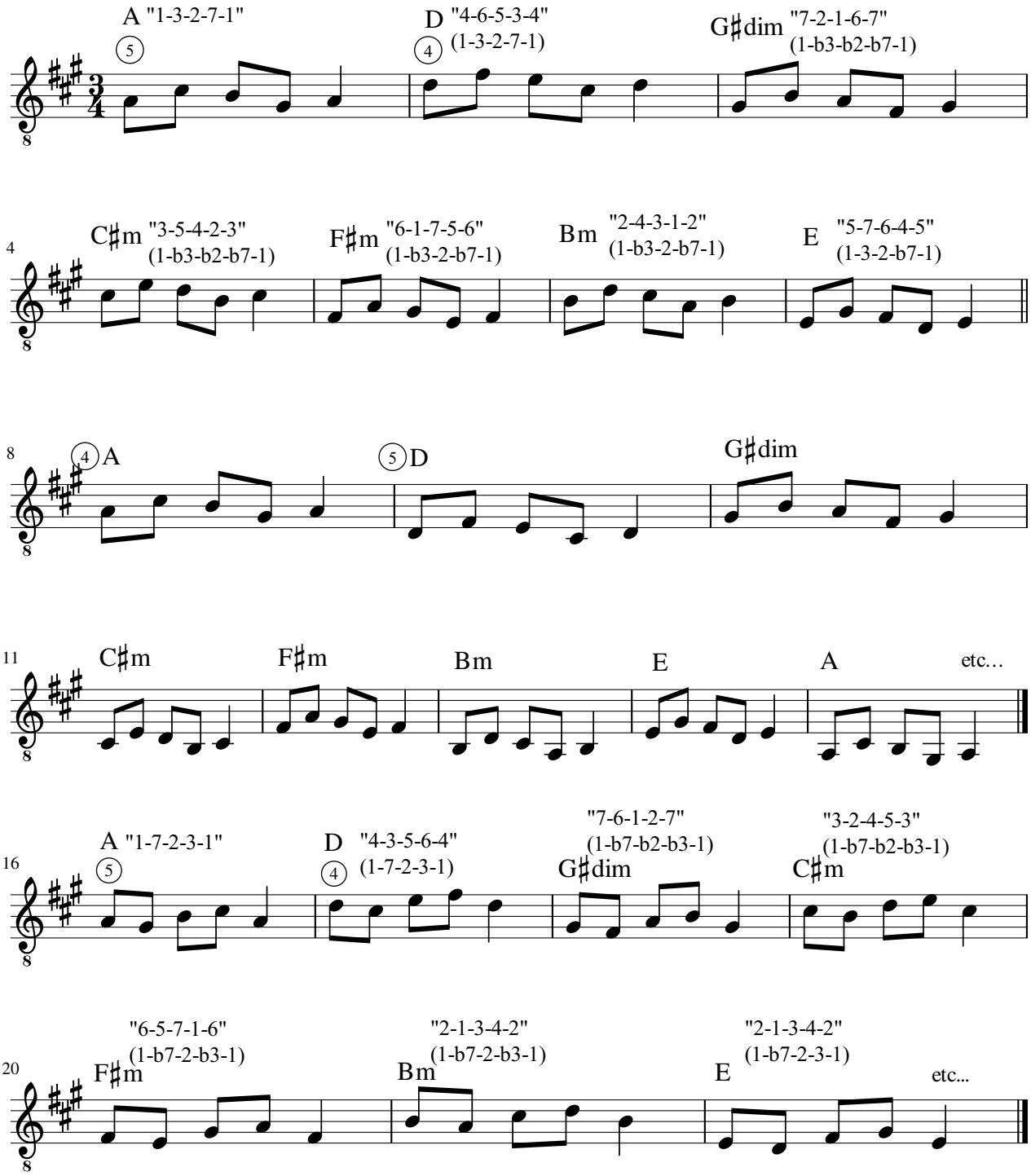

133
"1-b3-5-4-b3-b2-1"
Fing. 2
etc…

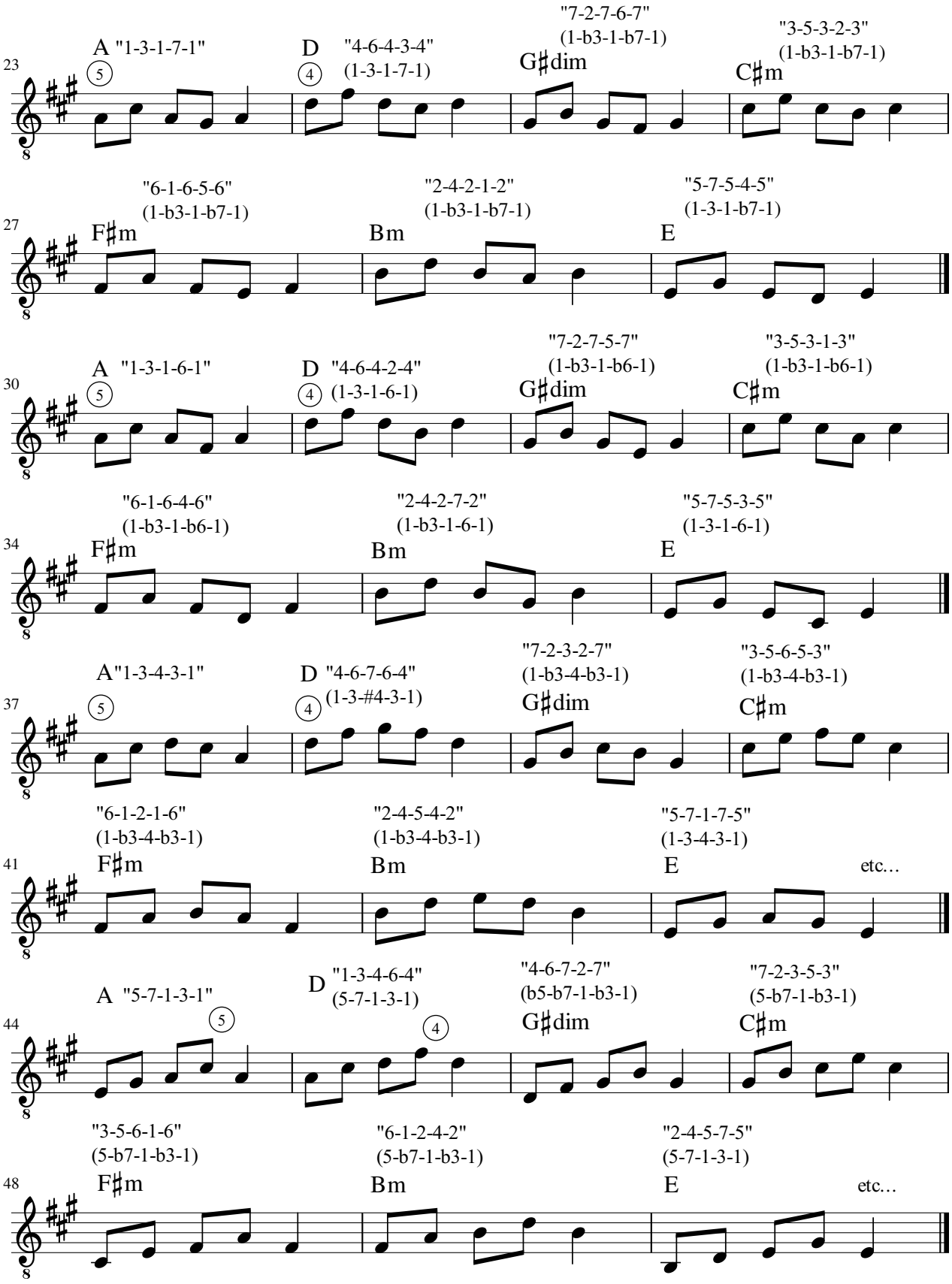

137
"1-b3-b5-4-b3-b2-1"
Fing. 2
etc…

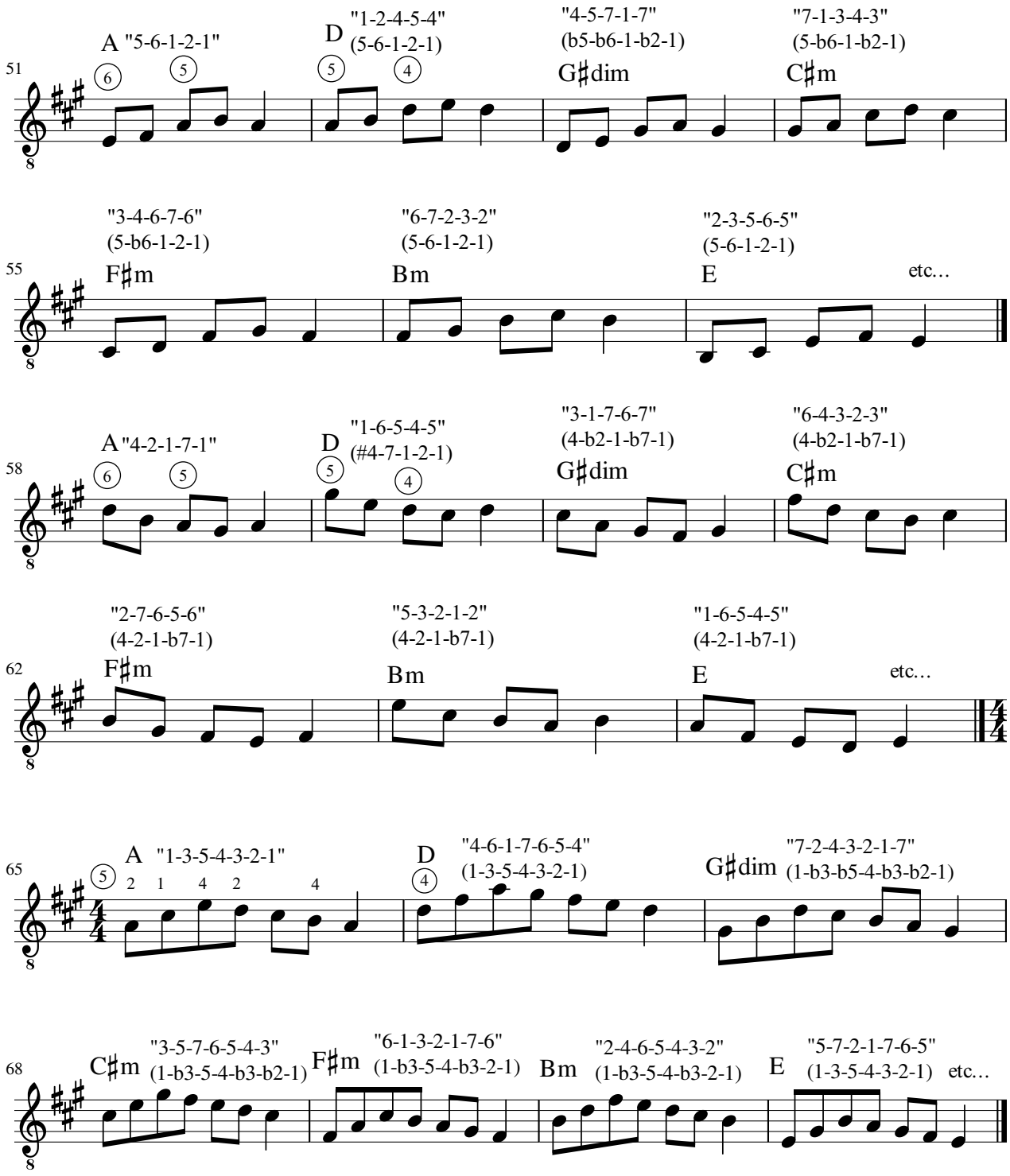
Riffing 3rds

Scale 5ths

Nebelung



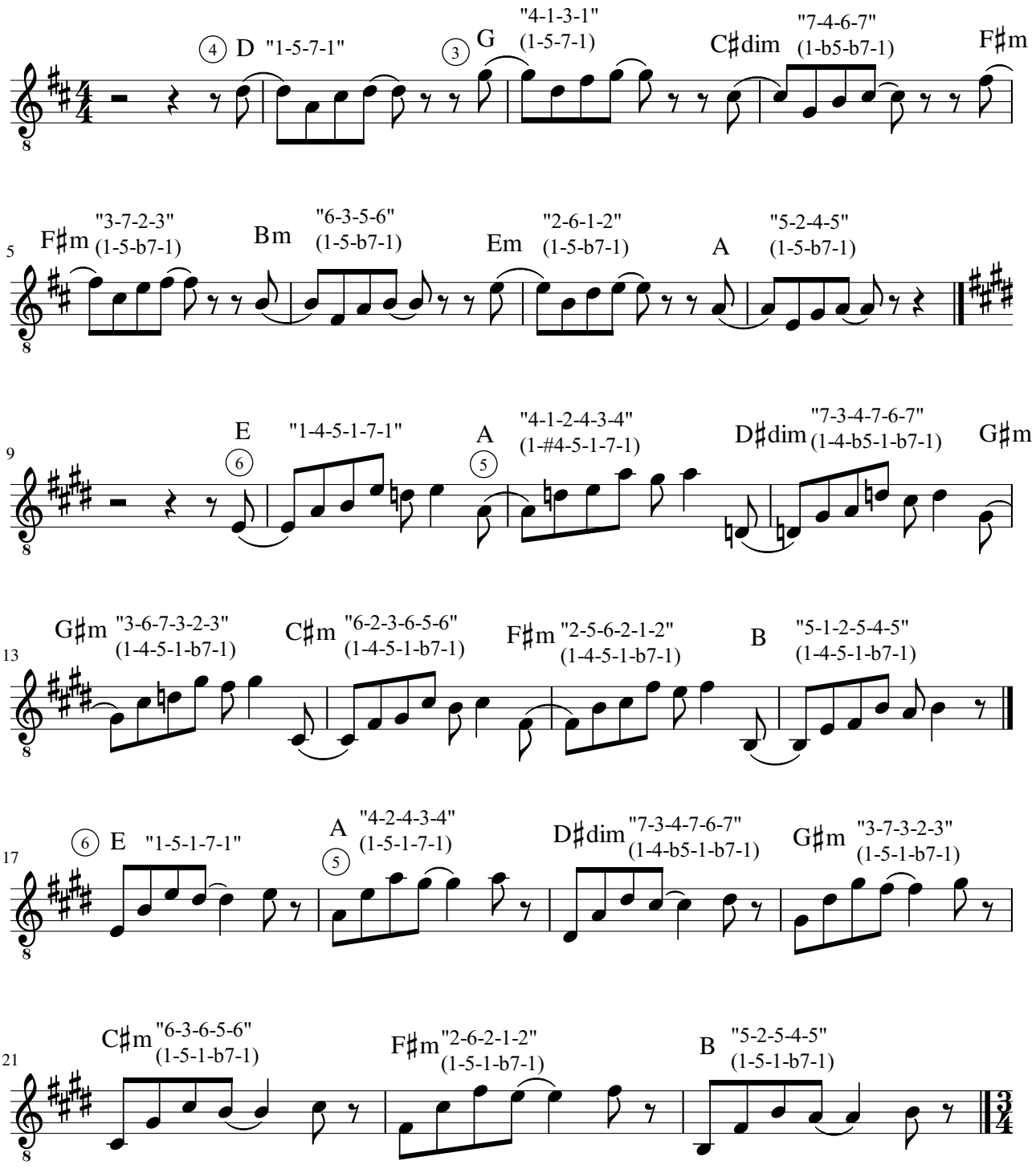

23
A "1-3-1-7-1"
(1-3-1-7-1)
D "4-6-4-3-4"
(1-3-1-7-1)
G♯dim "7-2-7-6-7"
(1-b3-1-b7-1)
C♯m "3-5-3-2-3"
(1-b3-1-b7-1)
27
F♯m "6-1-6-5-6"
(1-b3-1-b7-1)
Bm "2-4-2-1-2"
(1-b3-1-b7-1)
E "5-7-5-4-5"
(1-3-1-b7-1)
30
A "1-3-1-6-1"
D "4-6-4-2-4"
(1-3-1-6-1)
G♯dim "7-2-7-5-7"
(1-b3-1-b6-1)
C♯m "3-5-3-1-3"
(1-b3-1-b6-1)
34
F♯m "6-1-6-4-6"
(1-b3-1-b6-1)
Bm "2-4-2-7-2"
(1-b3-1-6-1)
E "5-7-5-3-5"
(1-3-1-6-1)
37
A"1-3-4-3-1"
D "4-6-7-6-4"
(1-3-#4-3-1)
G♯dim "7-2-3-2-7"
(1-b3-4-b3-1)
C♯m "3-5-6-5-3"
(1-b3-4-b3-1)
41
F♯m "6-1-2-1-6"
(1-b3-4-b3-1)
Bm "2-4-5-4-2"
(1-b3-4-b3-1)
E "5-7-1-7-5"
(1-3-4-3-1)
etc…
44
A "5-7-1-3-1"
D "1-3-4-6-4"
(5-7-1-3-1)
G♯dim "4-6-7-2-7"
(b5-b7-1-b3-1)
C♯m "7-2-3-5-3"
(5-b7-1-b3-1)
48
F♯m "3-5-6-1-6"
(5-b7-1-b3-1)
Bm "6-1-2-4-2"
(5-b7-1-b3-1)
E "2-4-5-7-5"
(5-7-1-3-1)
etc…

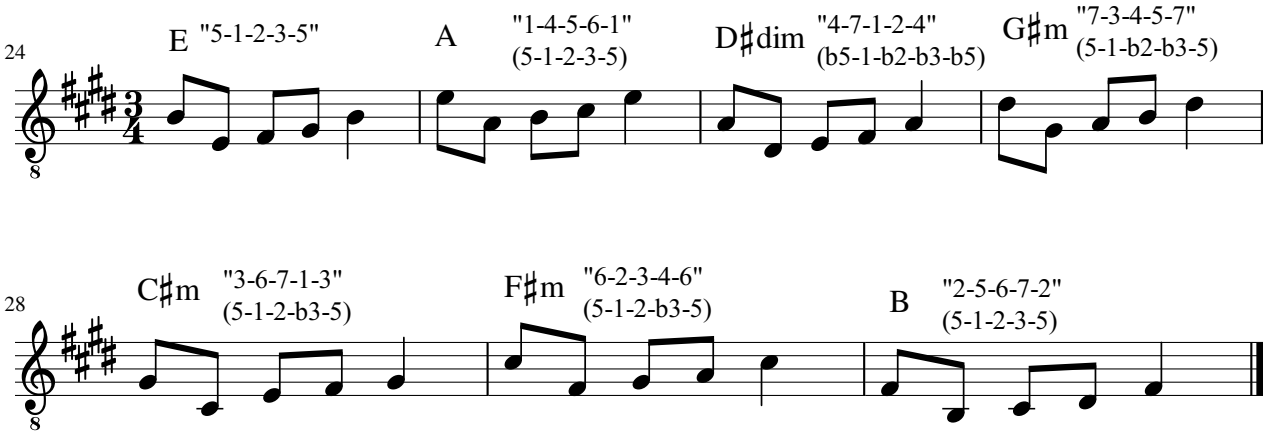

51
A "5-6-1-2-1"
D "1-2-4-5-4" (5-6-1-2-1)
"4-5-7-1-7" (b5-b6-1-b2-1)
G♯dim
"7-1-3-4-3" (5-b6-1-b2-1)
C♯m
55
"3-4-6-7-6" (5-b6-1-2-1)
F♯m
"6-7-2-3-2" (5-6-1-2-1)
Bm
"2-3-5-6-5" (5-6-1-2-1)
E
etc...
58
A "4-2-1-7-1"
D "1-6-5-4-5" (#4-7-1-2-1)
"3-1-7-6-7" (4-b2-1-b7-1)
G♯dim
"6-4-3-2-3" (4-b2-1-b7-1)
C♯m
62
"2-7-6-5-6" (4-2-1-b7-1)
F♯m
"5-3-2-1-2" (4-2-1-b7-1)
Bm
"1-6-5-4-5" (4-2-1-b7-1)
E
etc...
65
A "1-3-5-4-3-2-1"
D "4-6-1-7-6-5-4" (1-3-5-4-3-2-1)
G♯dim "7-2-4-3-2-1-7" (1-b3-b5-4-b3-b2-1)
68
C♯m "3-5-7-6-5-4-3" (1-b3-5-4-b3-b2-1)
F♯m "6-1-3-2-1-7-6" (1-b3-5-4-b3-2-1)
Bm "2-4-6-5-4-3-2" (1-b3-5-4-b3-2-1)
E "5-7-2-1-7-6-5" (1-3-5-4-3-2-1) etc...

Riffing 4ths & 5ths

Scale 5ths

Nebelung

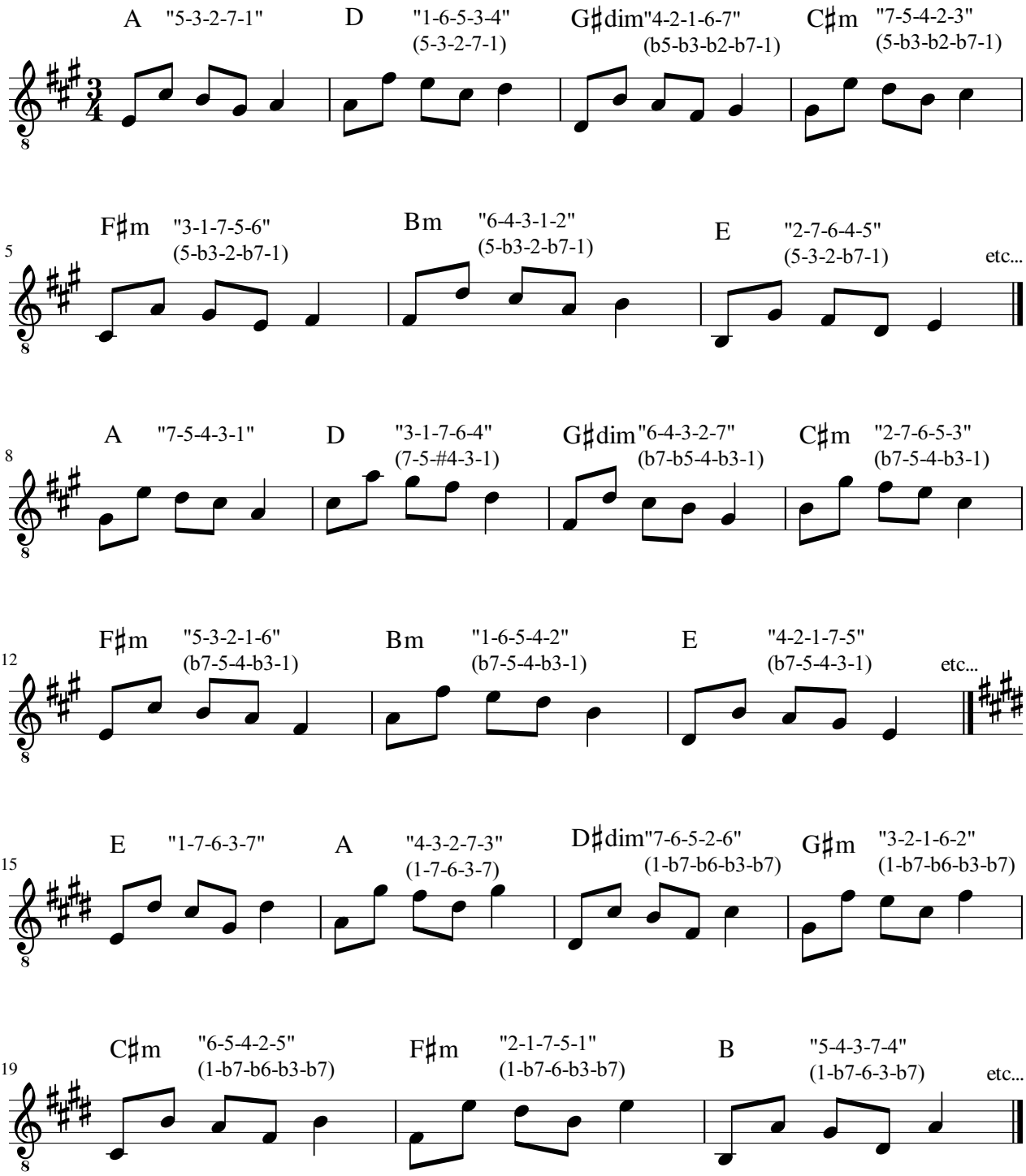


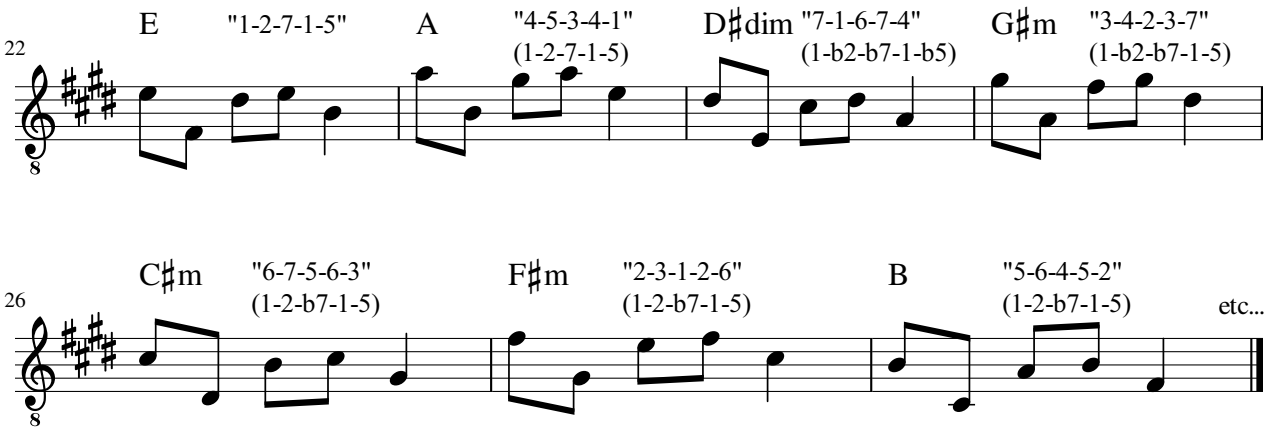

24
E "5-1-2-3-5"
A "1-4-5-6-1" (5-1-2-3-5)
D♯dim "4-7-1-2-4" (b5-1-b2-b3-b5)
G♯m "7-3-4-5-7" (5-1-b2-b3-5)
28
C♯m "3-6-7-1-3" (5-1-2-b3-5)
F♯m "6-2-3-4-6" (5-1-2-b3-5)
B "2-5-6-7-2" (5-1-2-3-5)

Riffing 6ths & 7ths

Scale 5ths

Nebelung

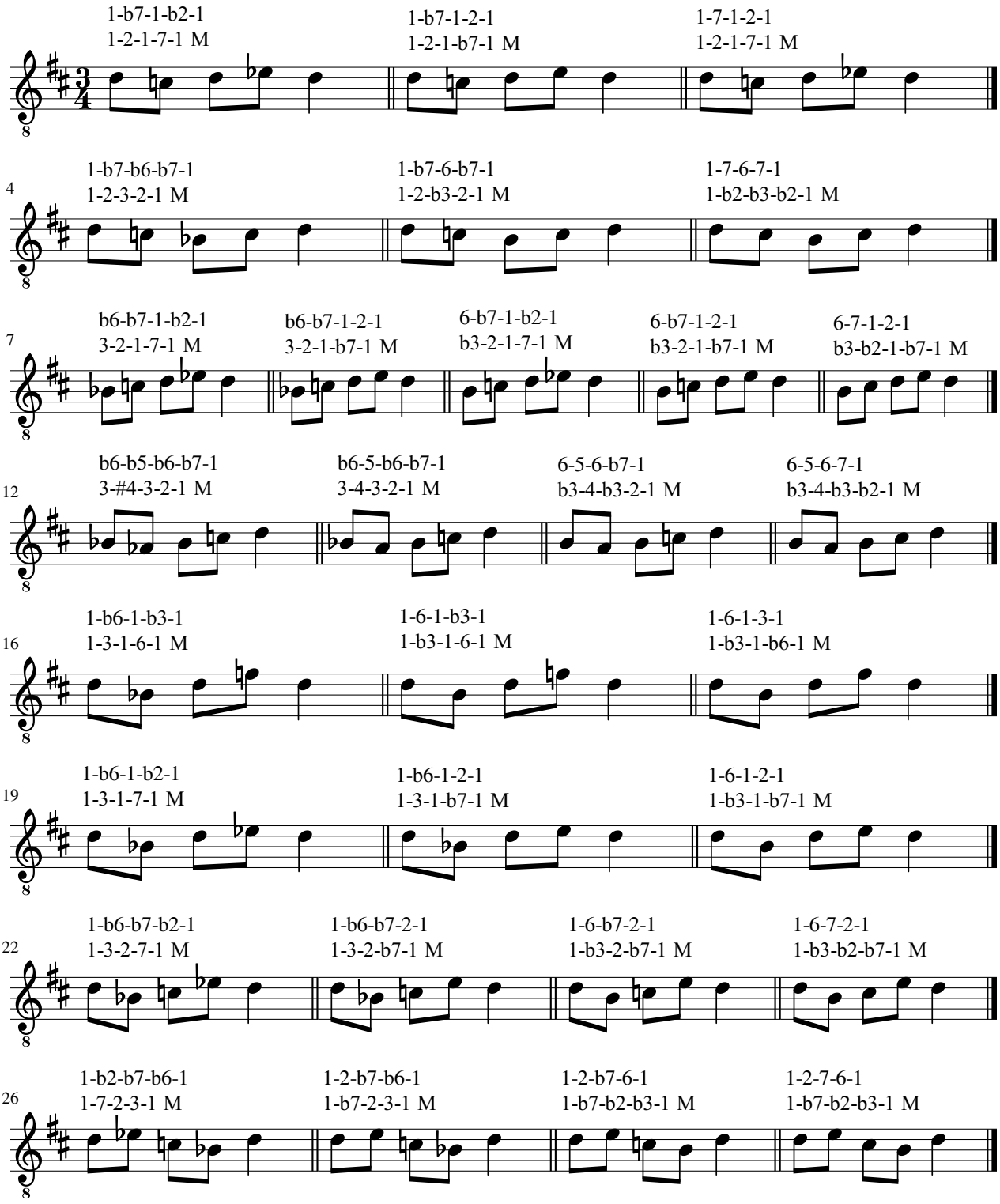


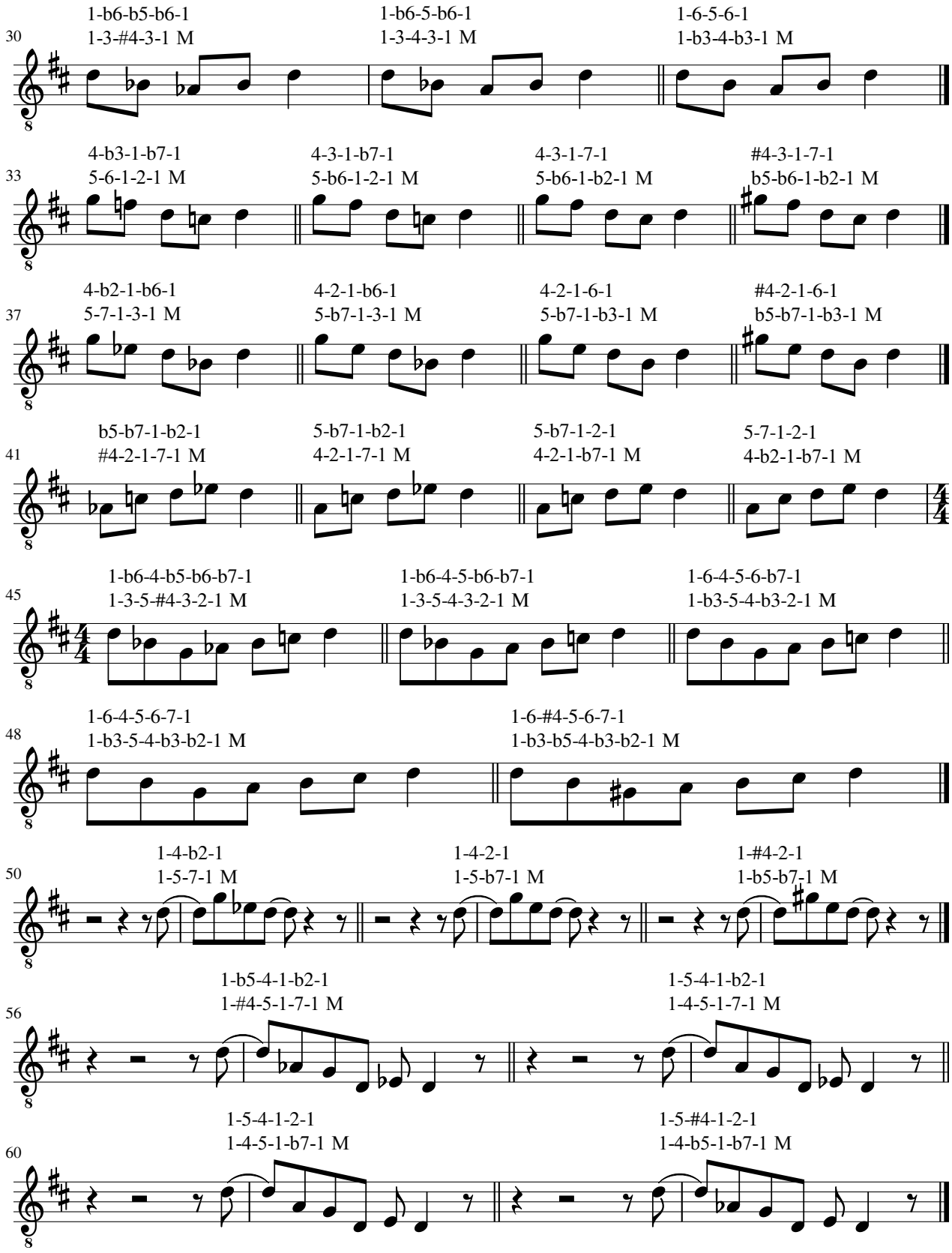

22
E
"1-2-7-1-5"
A
"4-5-3-4-1"
(1-2-7-1-5)
D♯dim
"7-1-6-7-4"
(1-b2-b7-1-b5)
G♯m
"3-4-2-3-7"
(1-b2-b7-1-5)
26
C♯m
"6-7-5-6-3"
(1-2-b7-1-5)
F♯m
"2-3-1-2-6"
(1-2-b7-1-5)
B
"5-6-4-5-2"
(1-2-b7-1-5)
etc...

Riffing Mirrored Motives

Riff Inversions

Nebelung



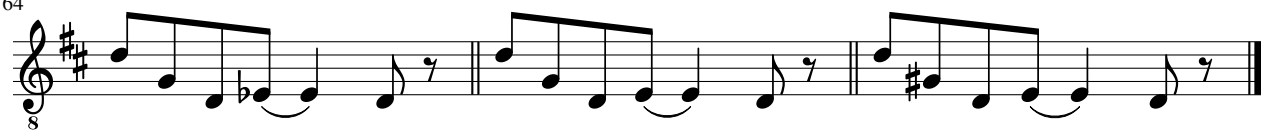

30
1-b6-b5-b6-1
1-3-#4-3-1 M
1-b6-5-b6-1
1-3-4-3-1 M
1-6-5-6-1
1-b3-4-b3-1 M
33
4-b3-1-b7-1
5-6-1-2-1 M
4-3-1-b7-1
5-b6-1-2-1 M
4-3-1-7-1
5-b6-1-b2-1 M
#4-3-1-7-1
b5-b6-1-b2-1 M
37
4-b2-1-b6-1
5-7-1-3-1 M
4-2-1-b6-1
5-b7-1-3-1 M
4-2-1-6-1
5-b7-1-b3-1 M
#4-2-1-6-1
b5-b7-1-b3-1 M
41
b5-b7-1-b2-1
#4-2-1-7-1 M
5-b7-1-b2-1
4-2-1-7-1 M
5-b7-1-2-1
4-2-1-b7-1 M
5-7-1-2-1
4-b2-1-b7-1 M
45
1-b6-4-b5-b6-b7-1
1-3-5-#4-3-2-1 M
1-b6-4-5-b6-b7-1
1-3-5-4-3-2-1 M
1-6-4-5-6-b7-1
1-b3-5-4-b3-2-1 M
48
1-6-4-5-6-7-1
1-b3-5-4-b3-b2-1 M
1-6-#4-5-6-7-1
1-b3-b5-4-b3-b2-1 M
50
1-4-b2-1
1-5-7-1 M
1-4-2-1
1-5-b7-1 M
1-#4-2-1
1-b5-b7-1 M
56
1-b5-4-1-b2-1
1-#4-5-1-7-1 M
1-5-4-1-b2-1
1-4-5-1-7-1 M
60
1-5-4-1-2-1
1-4-5-1-b7-1 M
1-5-#4-1-2-1
1-4-b5-1-b7-1 M

64

1-4-1-b2-1
1-5-1-7-1 M

1-4-1-2-1
1-5-1-b7-1 M

1-#4-1-2-1
1-b5-1-b7-1 M



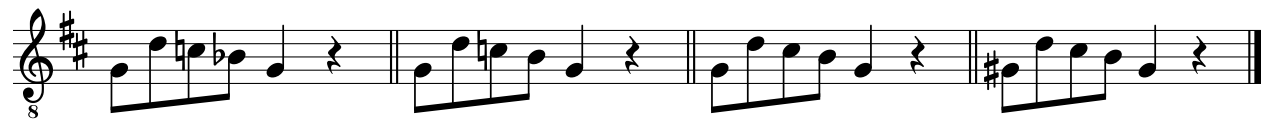
67

4-1-b7-b6-4
5-1-2-3-5 M

4-1-b7-6-4
5-1-2-b3-5 M

4-1-7-6-4
5-1-b2-b3-5 M

4-1-7-6-4
b5-1-b2-b3-b5 M



71

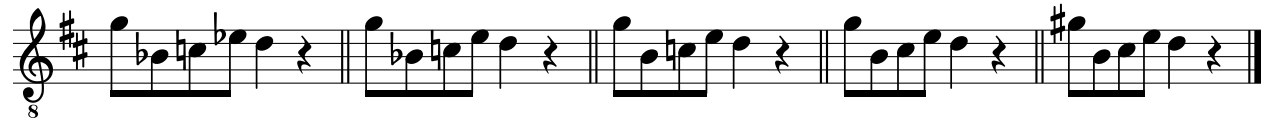
4-b6-b7-b2-1
5-3-2-7-1 M

4-b6-b7-2-1
5-3-2-b7-1 M

4-6-b7-2-1
5-b3-2-b7-1 M

4-6-7-2-1
5-b3-b2-b7-1 M

#4-6-7-2-1
b5-b3-b2-b7-1 M



76

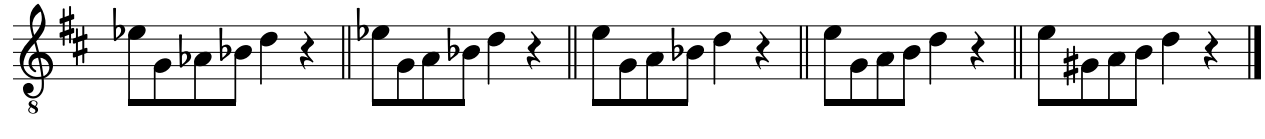
b2-4-b5-b6-1
7-5-#4-3-1 M

b2-4-5-b6-1
7-5-4-3-1 M

2-4-5-b6-1
b7-5-4-3-1 M

2-4-5-6-1
b7-5-4-b3-1 M

2-#4-5-6-1
b7-b5-4-b3-1 M



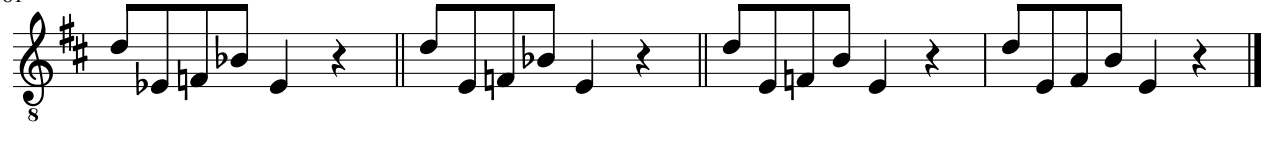
81

1-b2-b3-b6-b2
1-7-6-3-7 M

1-2-b3-b6-2
1-b7-6-3-b7 M

1-2-b3-6-2
1-b7-6-b3-b7 M

1-2-3-6-2
1-b7-b6-b3-b7 M



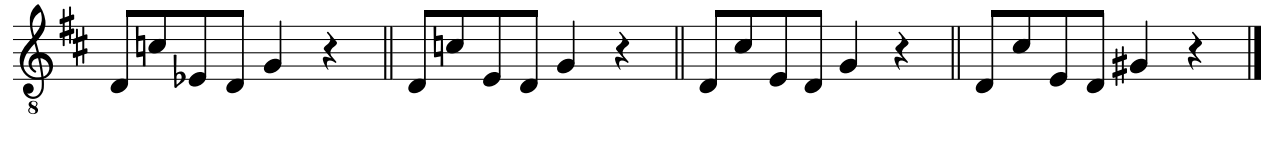
85

1-b7-b2-1-4
1-2-7-1-5 M

1-b7-2-1-4
1-2-b7-1-5 M

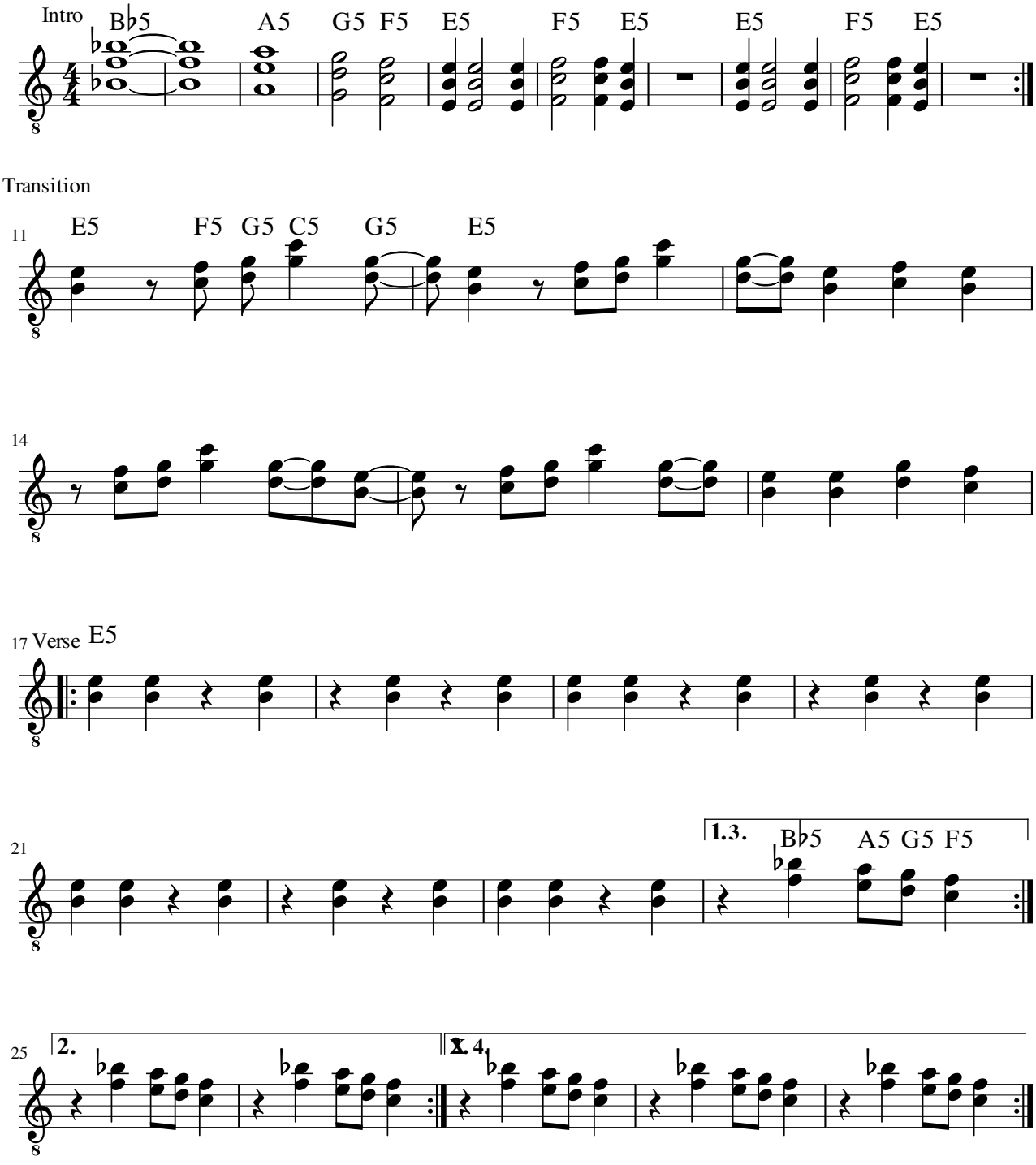
1-7-2-1-4
1-b2-b7-1-5 M

1-7-2-1-#4
1-b2-b7-1-b5 M



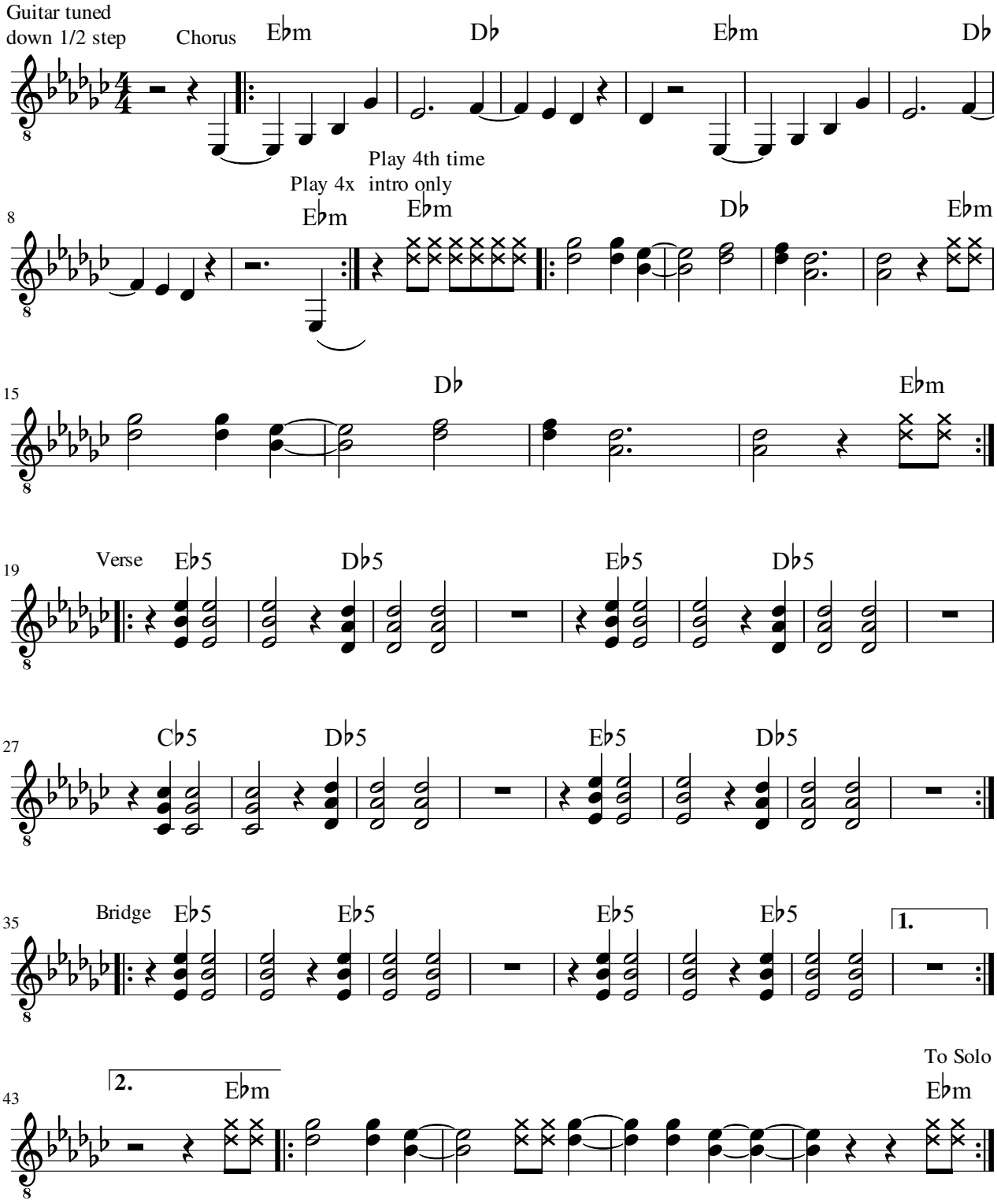
"Ashes In Your Mouth" - Megadeth

Locrian



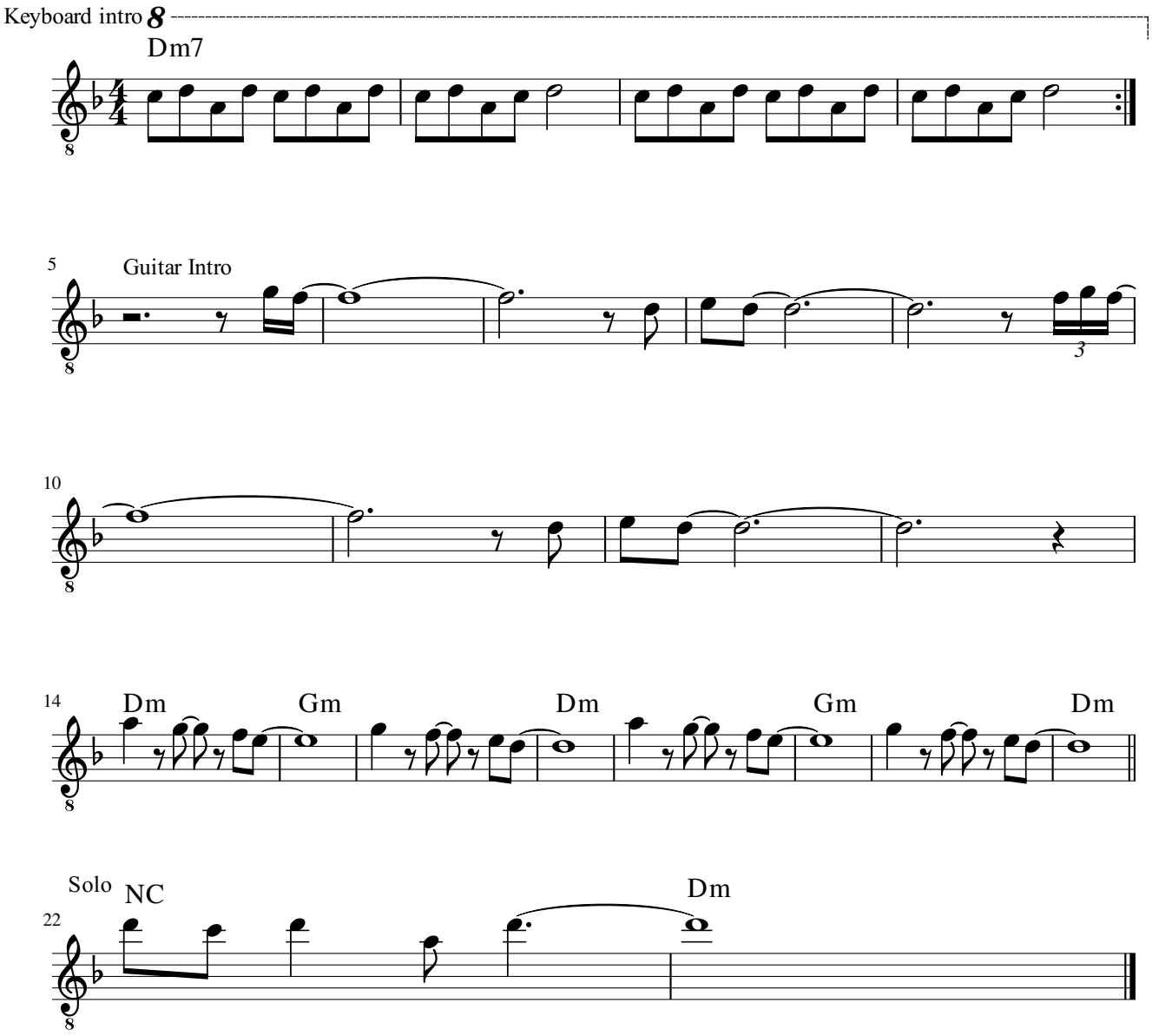
"Beat It" - Michael Jackson/Eddie Van Halen

Aeolian



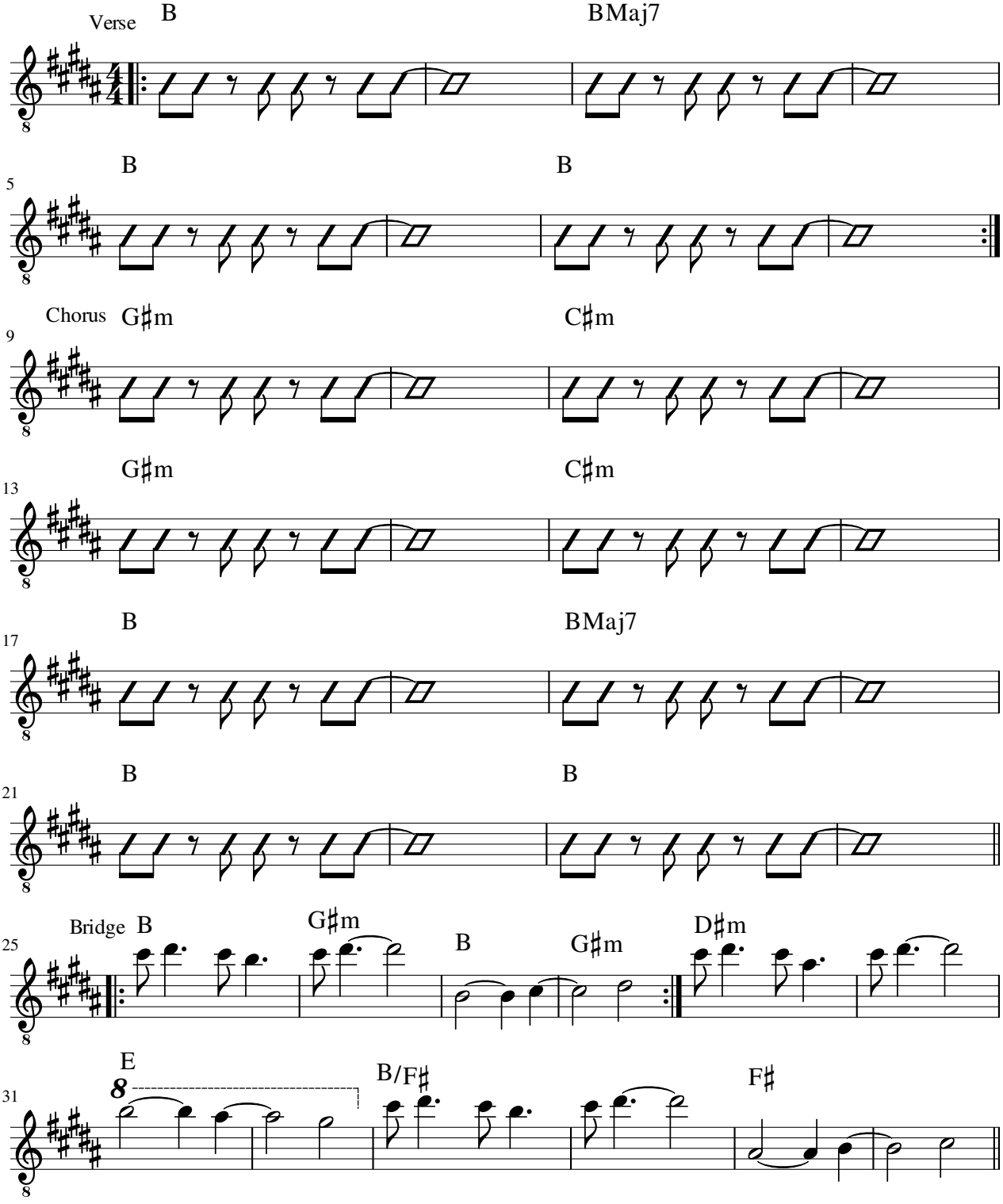
"Black Magic Woman" - Santana

Aeolian



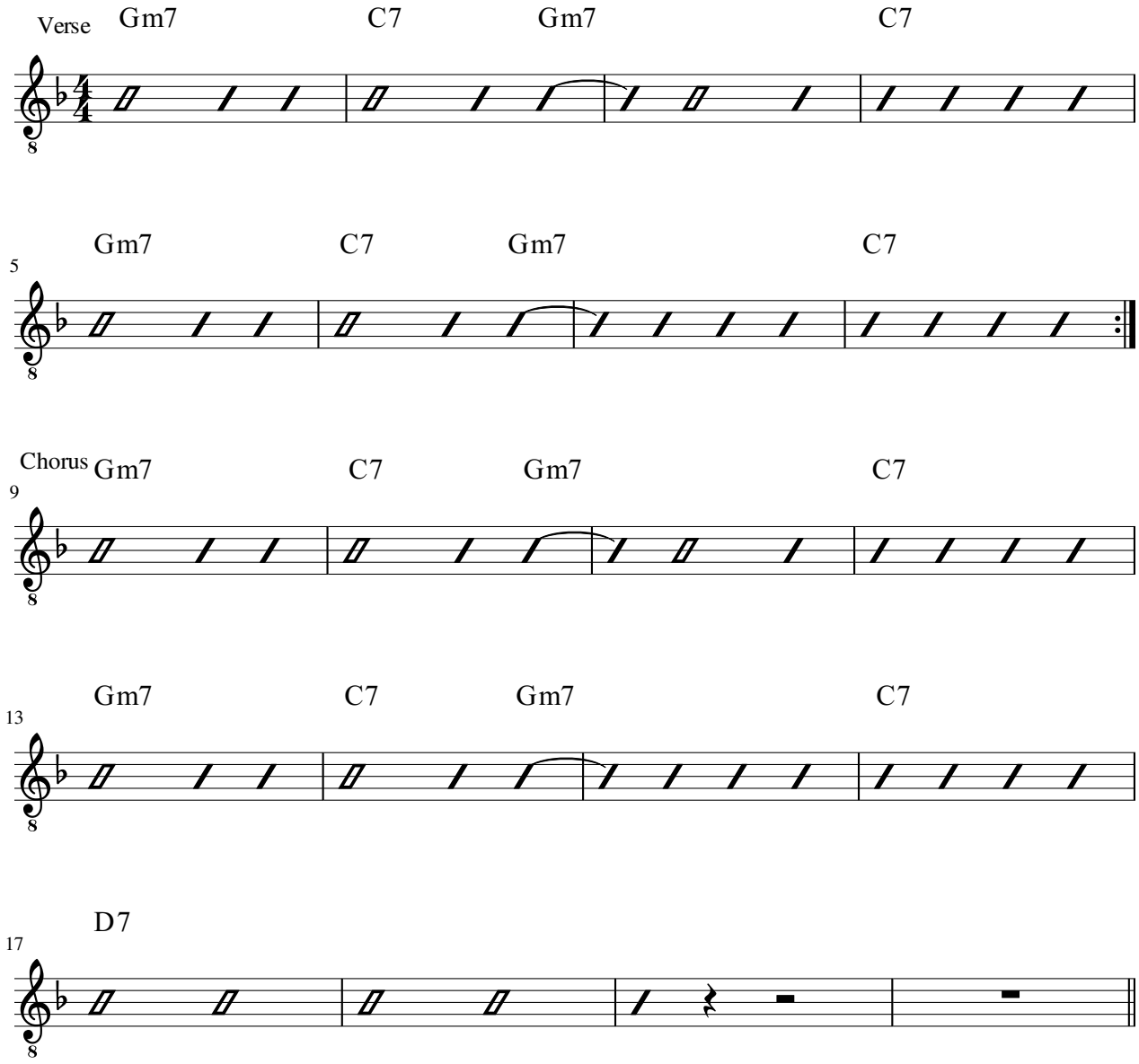
"Drive" - The Cars

Ionian



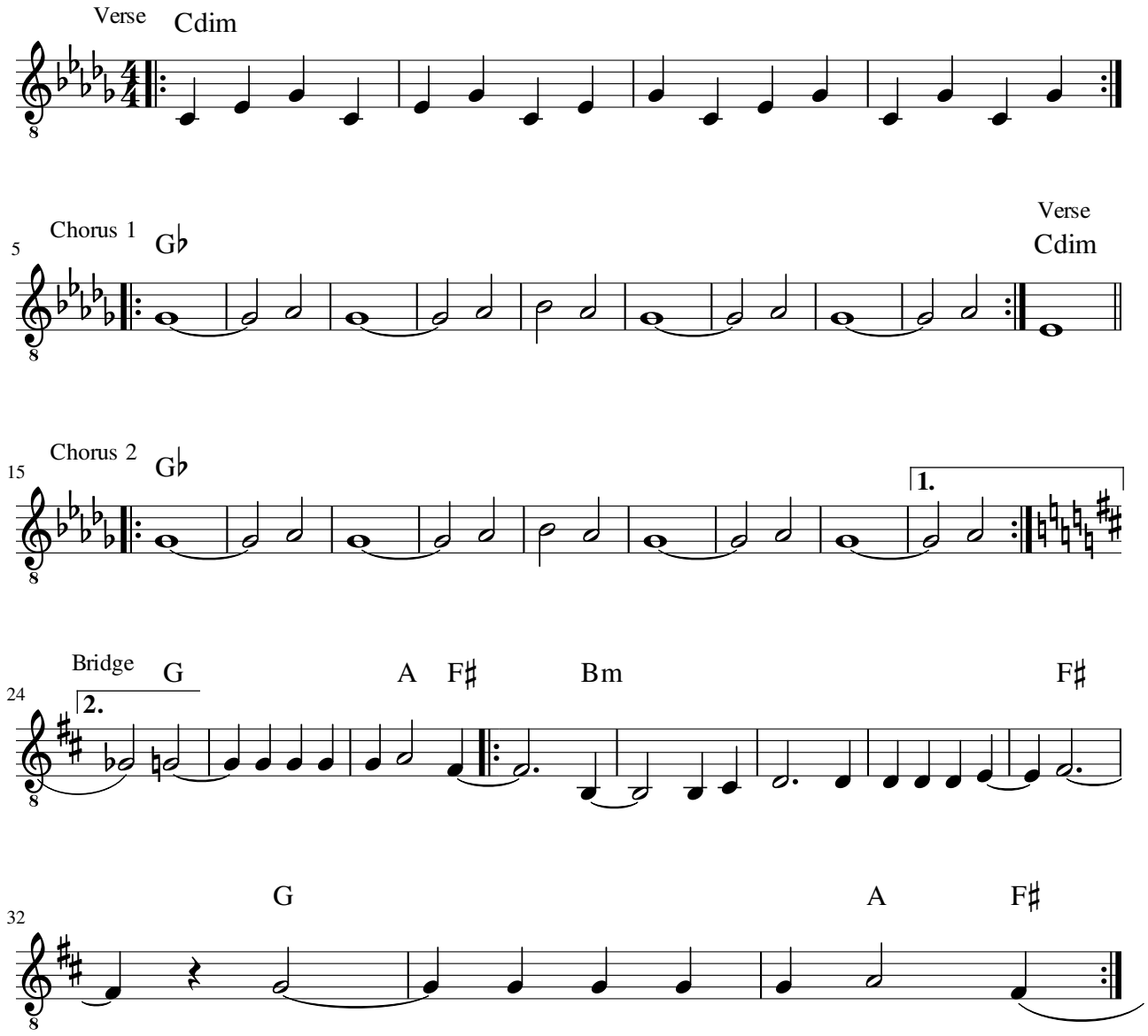
"Evil Ways" - Santana

Dorian



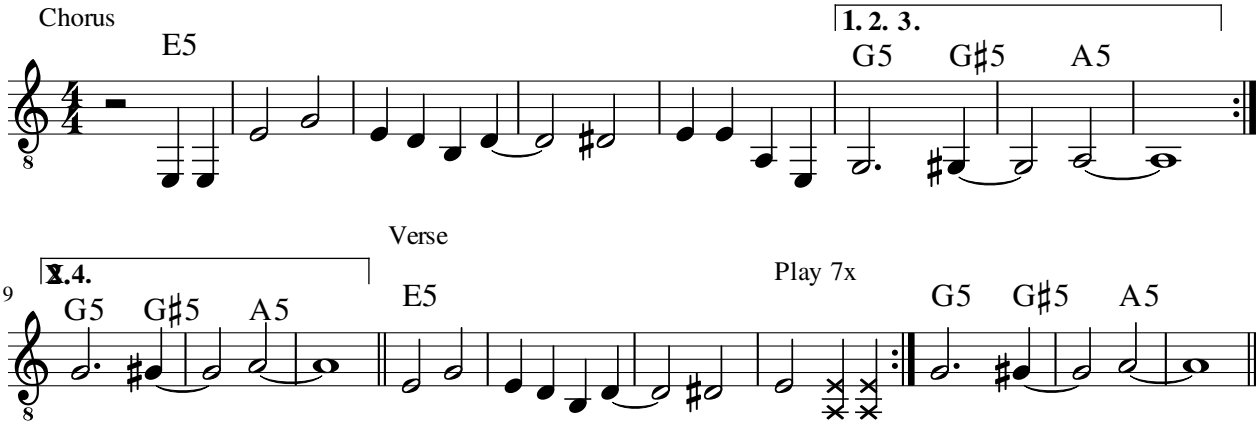
"Frogs" - Alice in Chains

Locrian



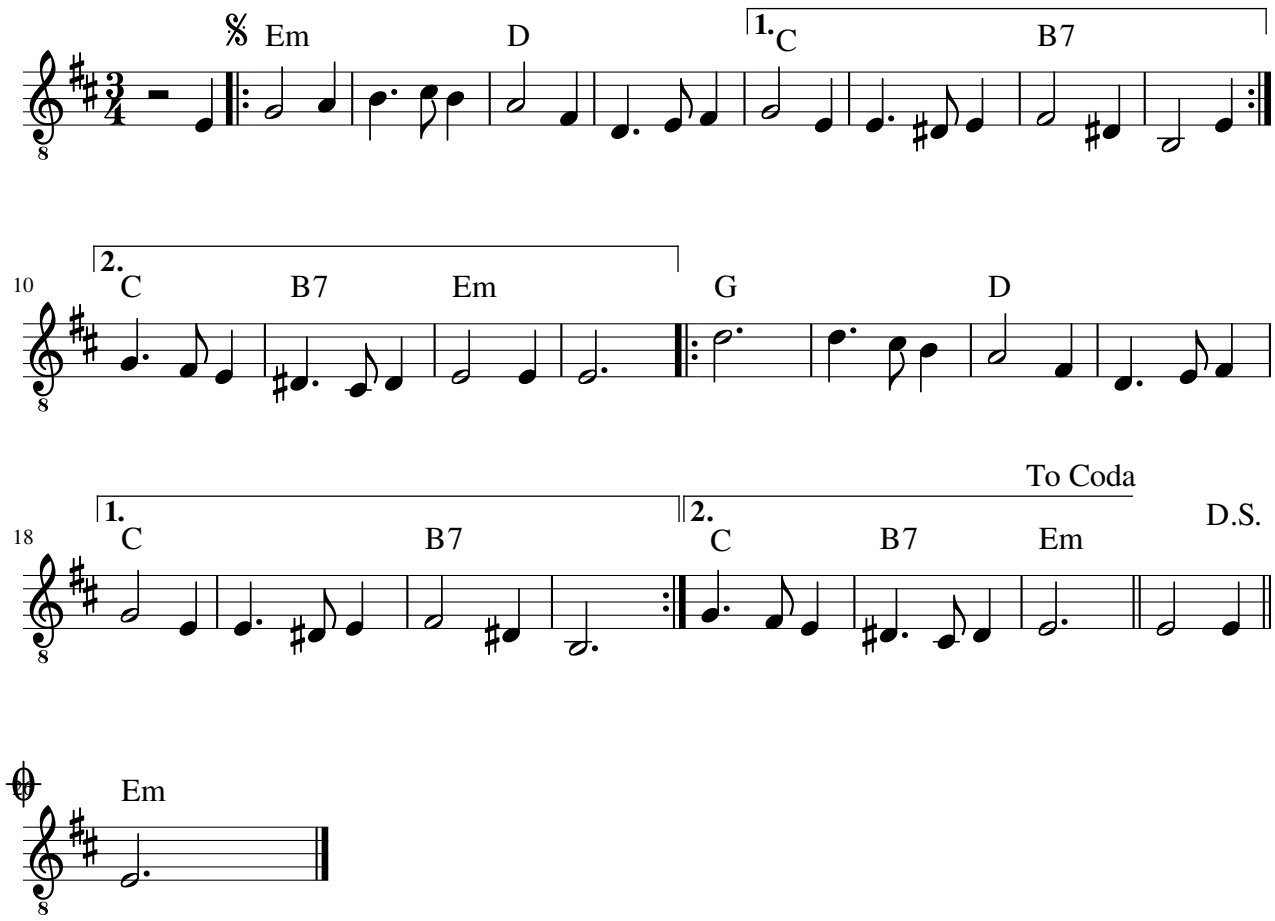
"Gratitude" - Beastie Boys

Minor Pentatonic



"Greensleeves" - Anonymous

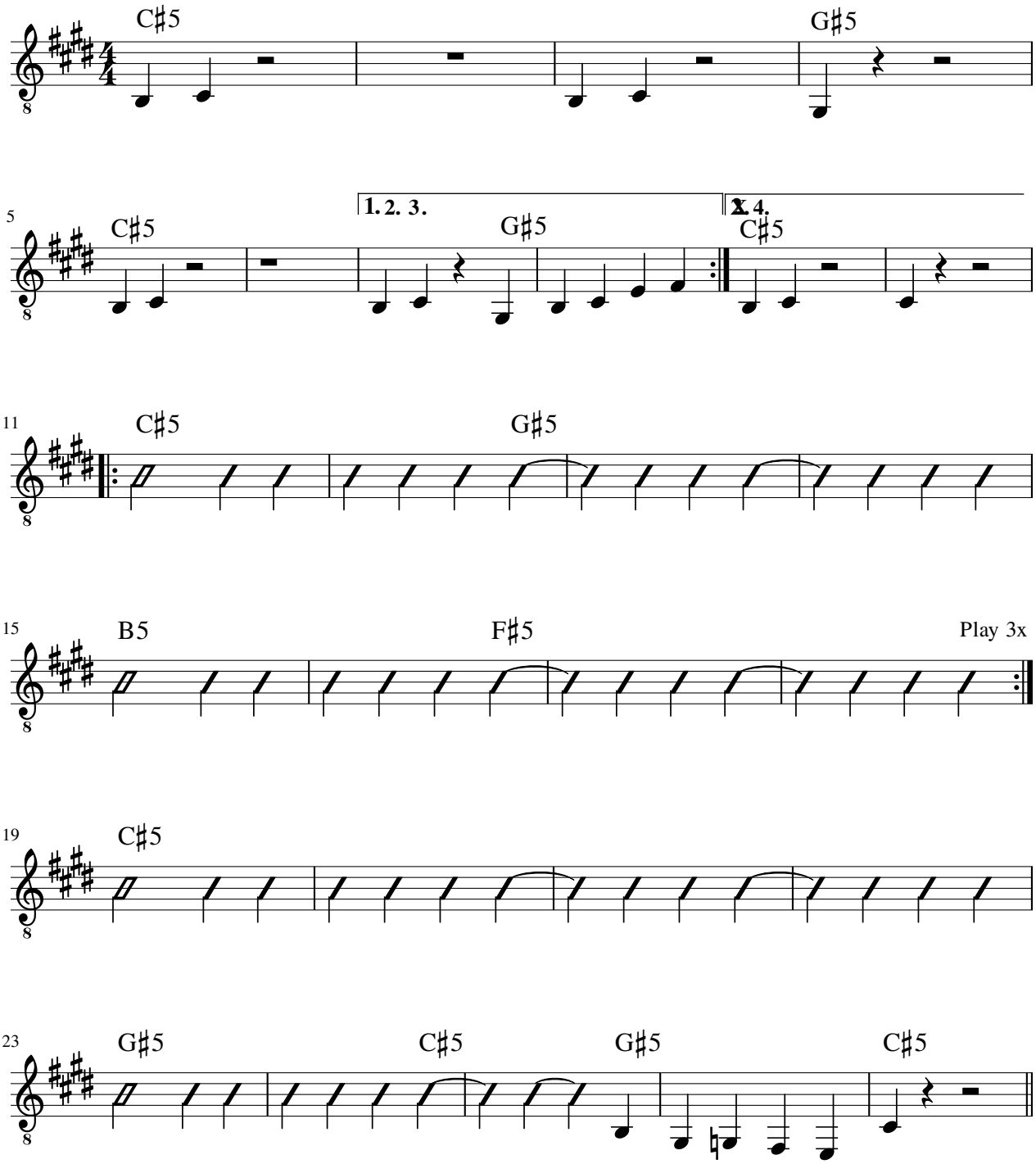
Dorian



"Harder to Breathe" - Maroon 5

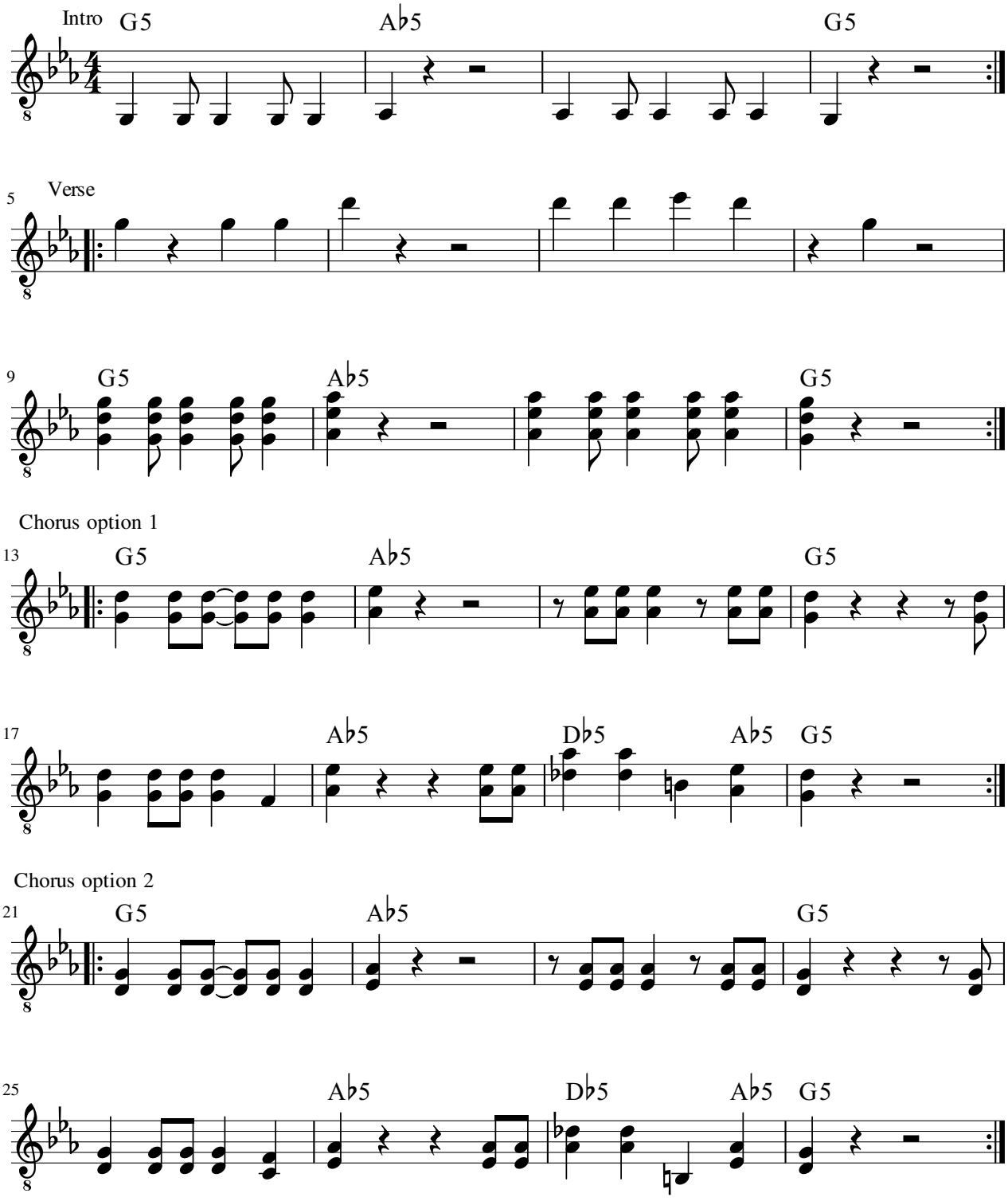
Minor Pentatonic

Intro and Verse



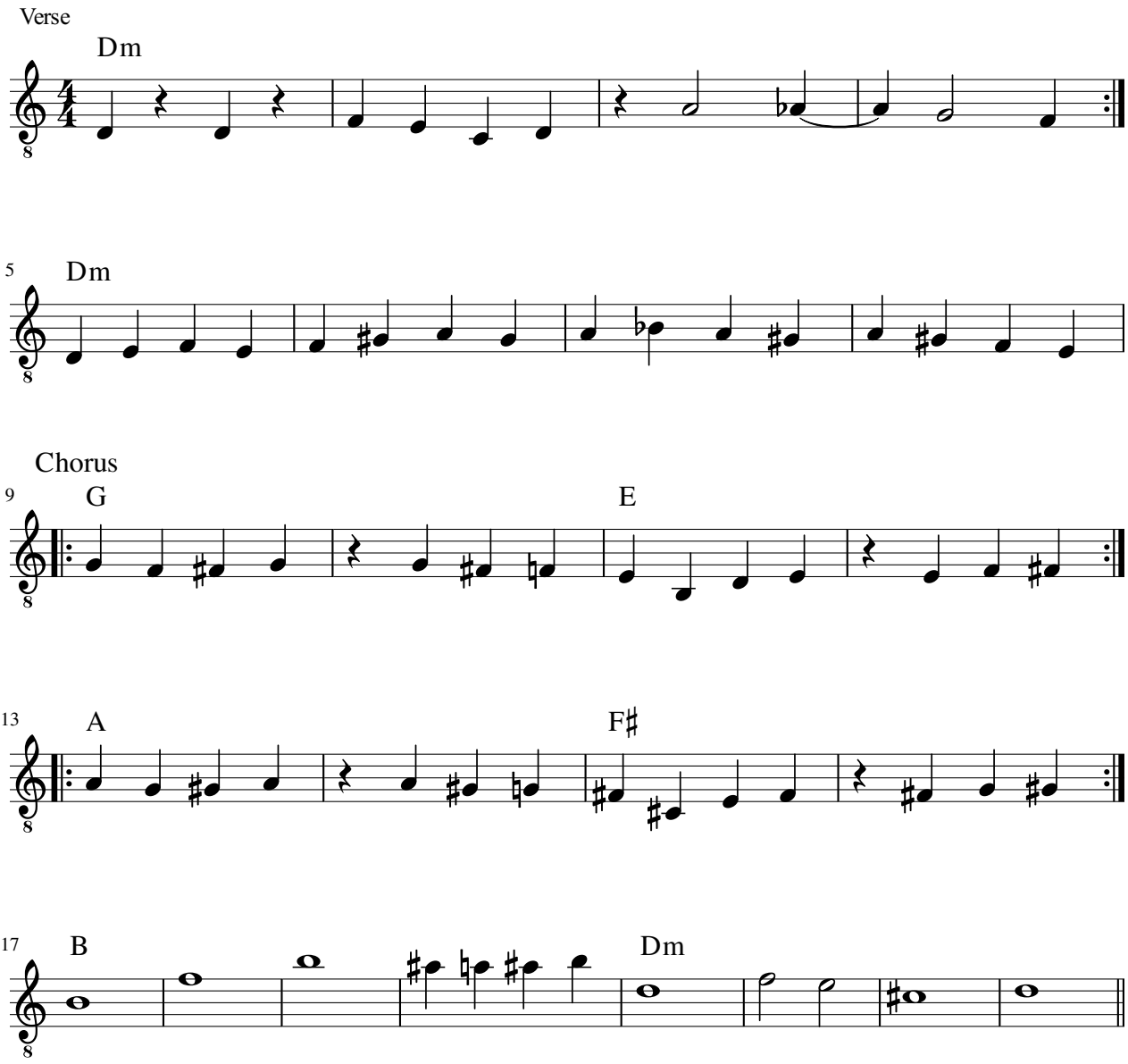
"Hella Good" - No Doubt

Octatonic/Diminished Whole-Tone



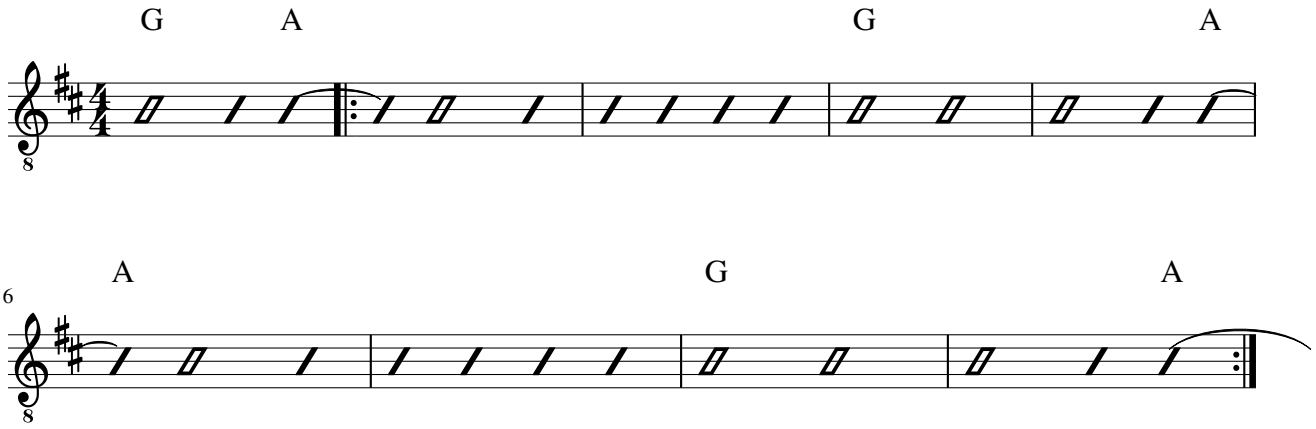
"In A Gadda Da Vida" - Iron Butterfly

Blues scale



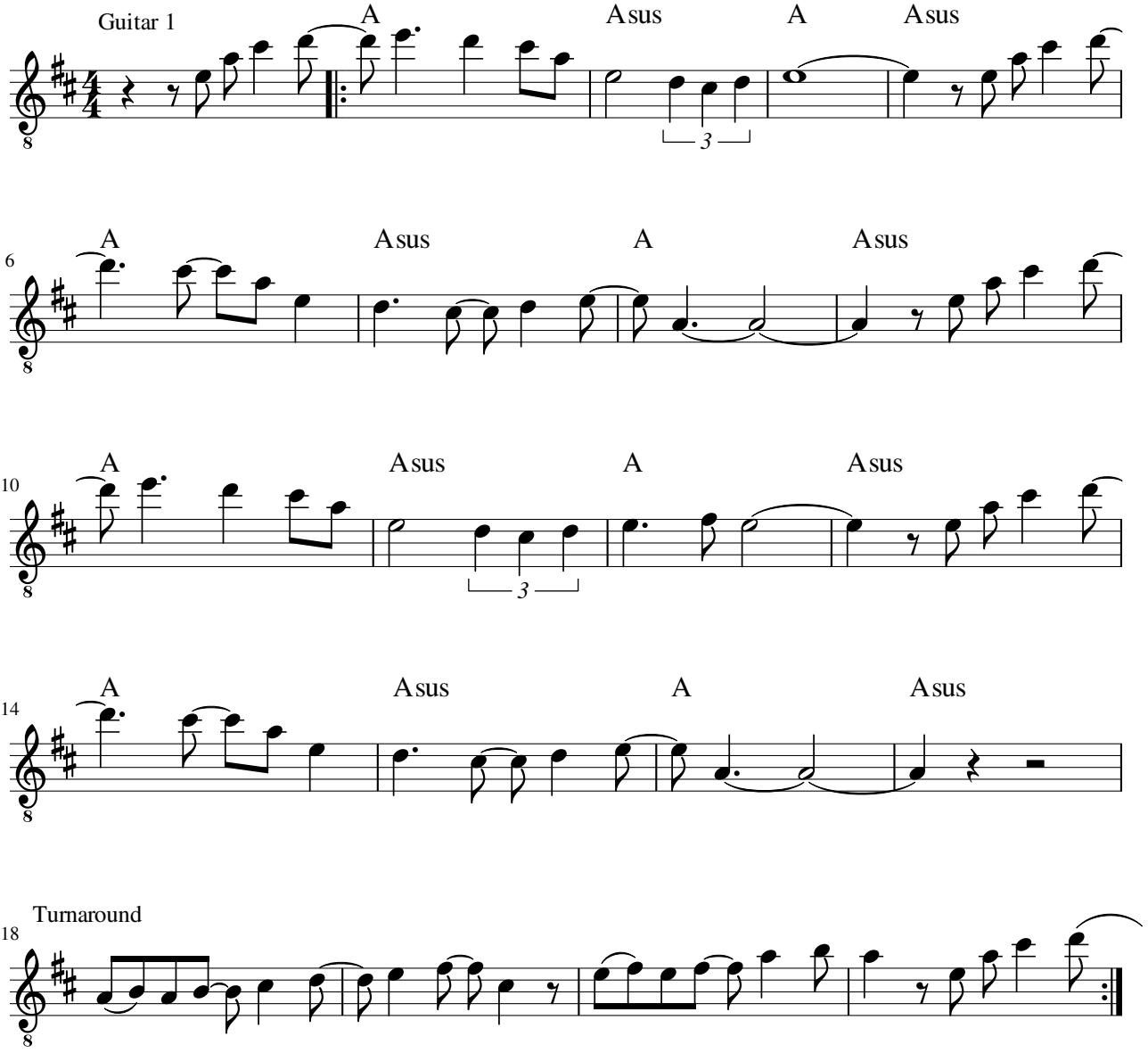
"Jane Says" - Jane's Addiction

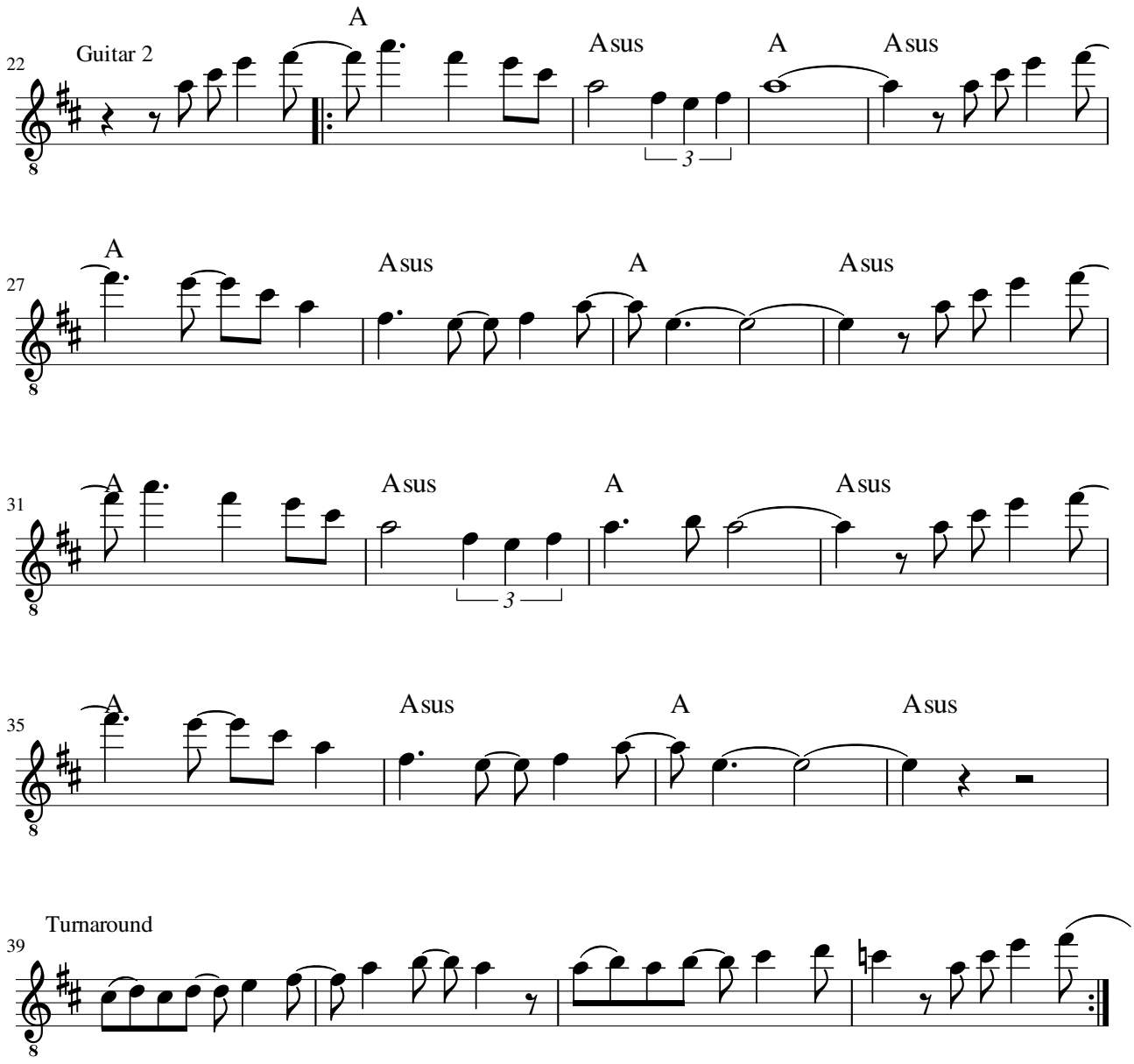
Lydian



"Jessica" - The Allman Brothers Band

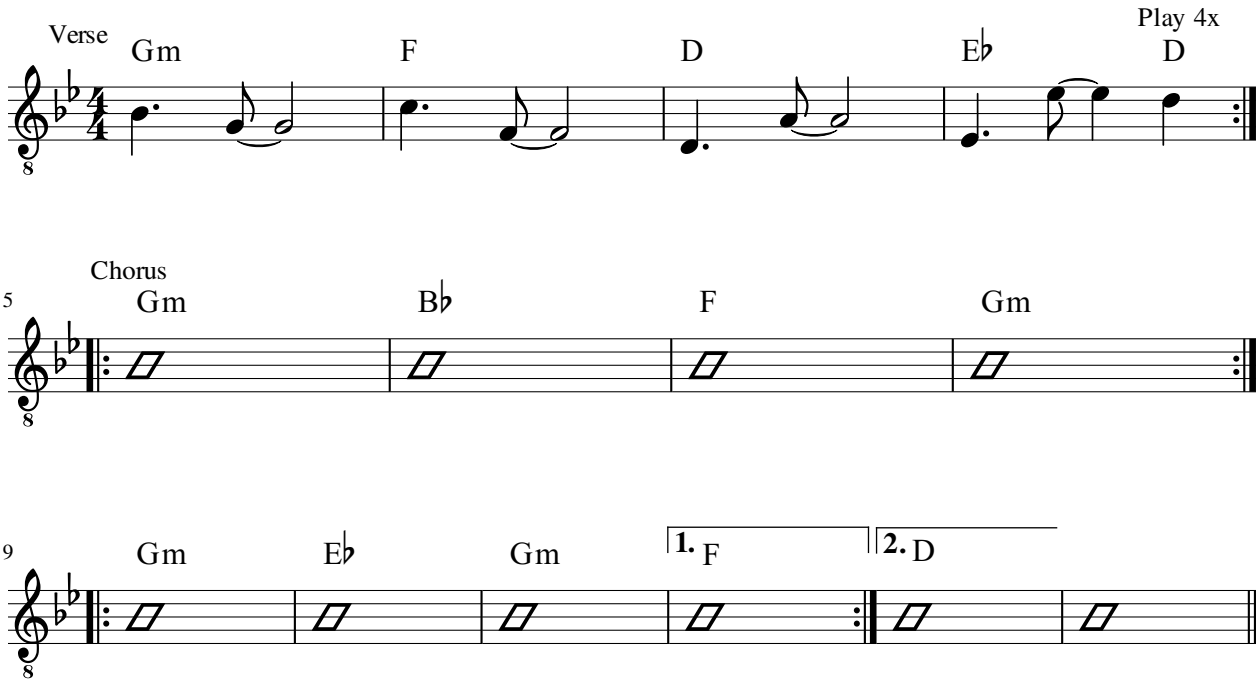
Mixolydian




Guitar 2
22
A
Asus
A
Asus
3
27
A
Asus
A
Asus
31
A
Asus
A
Asus
3
35
A
Asus
A
Asus
Turnaround
39

"Like A Stone" - Audioslave

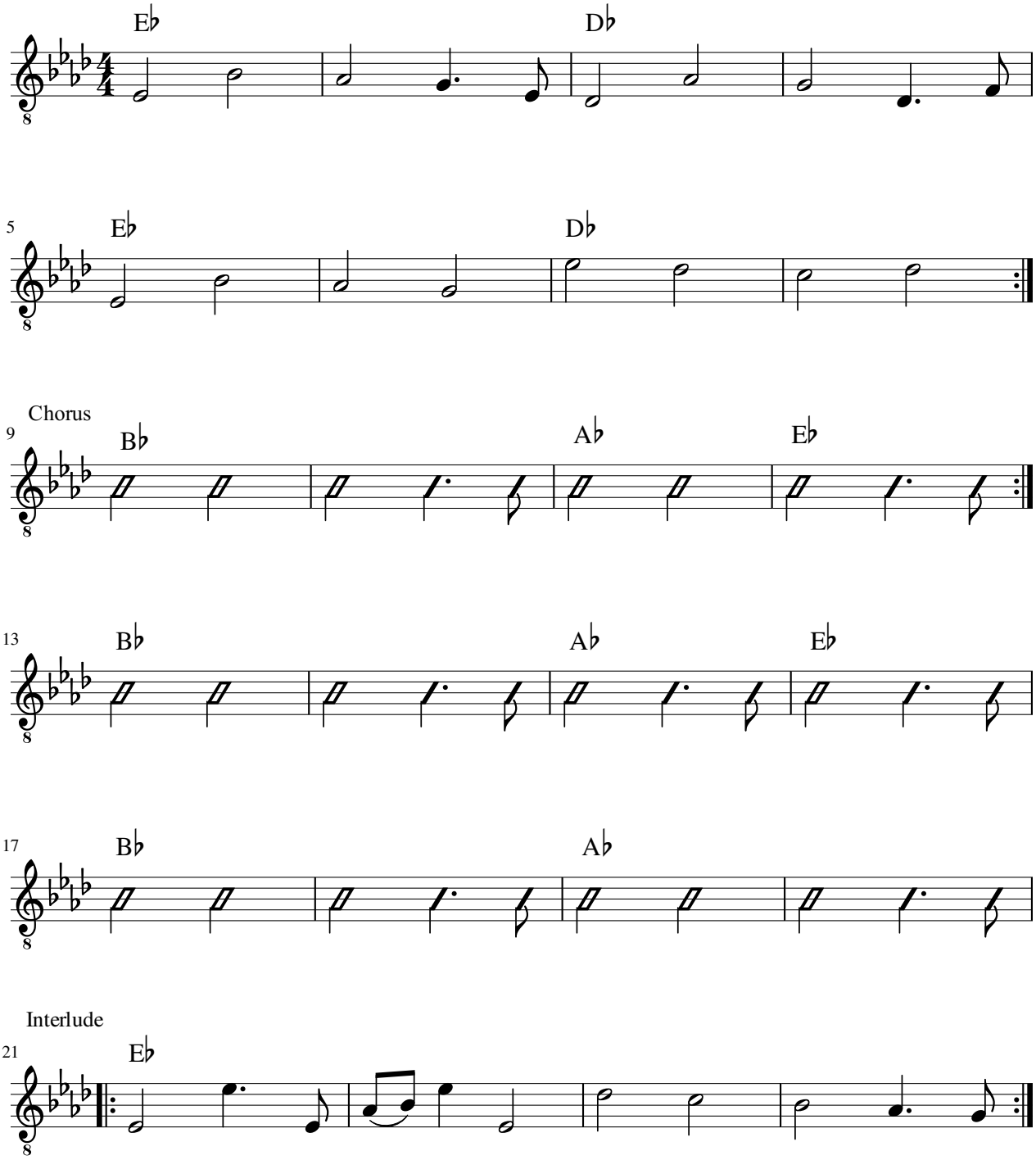
Aeolian



"Long View" - Green Day

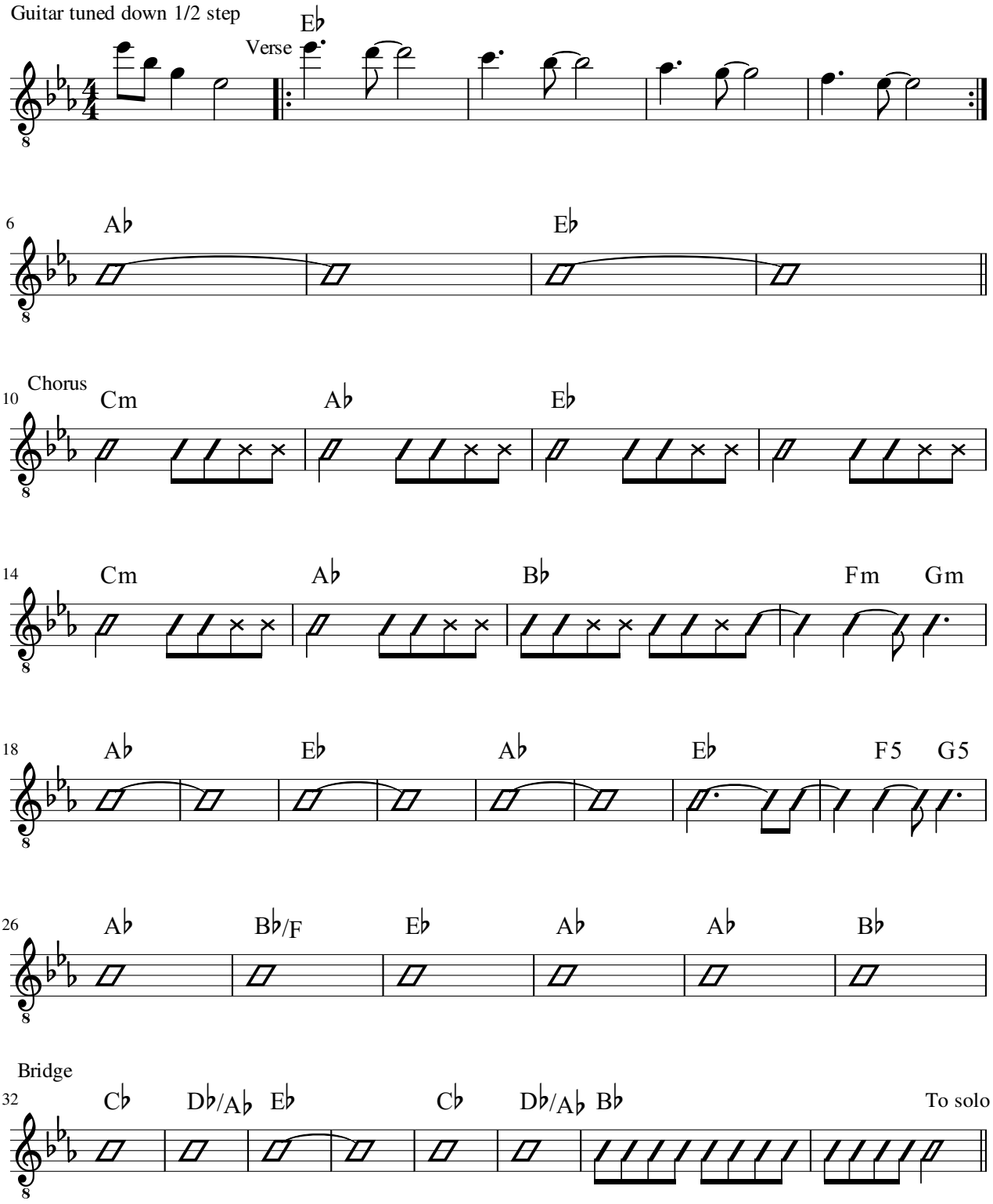
Lydian/Mixolydian

Bassline Verse



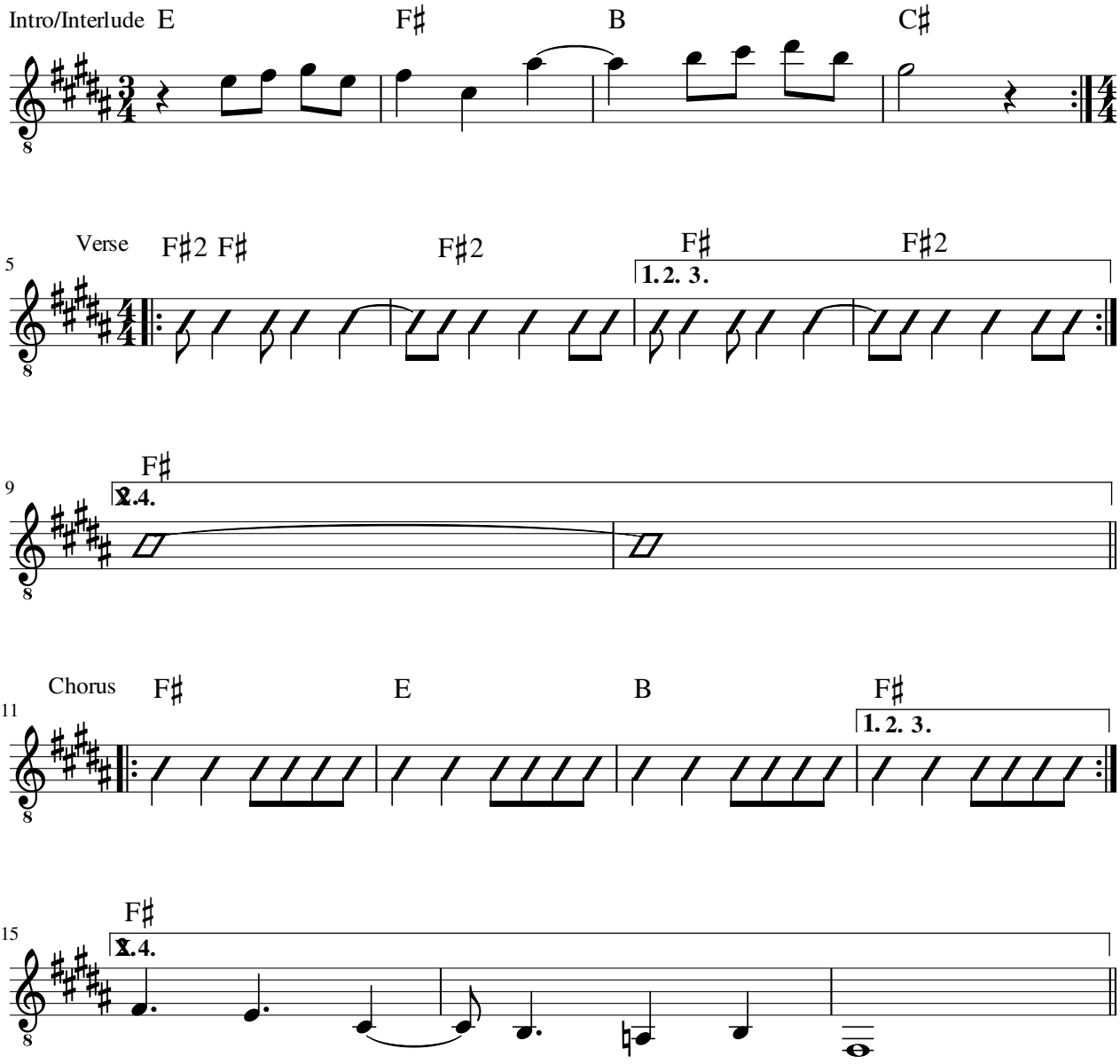
"Mama, I'm Coming Home" - Ozzy Osbourne

Ionian



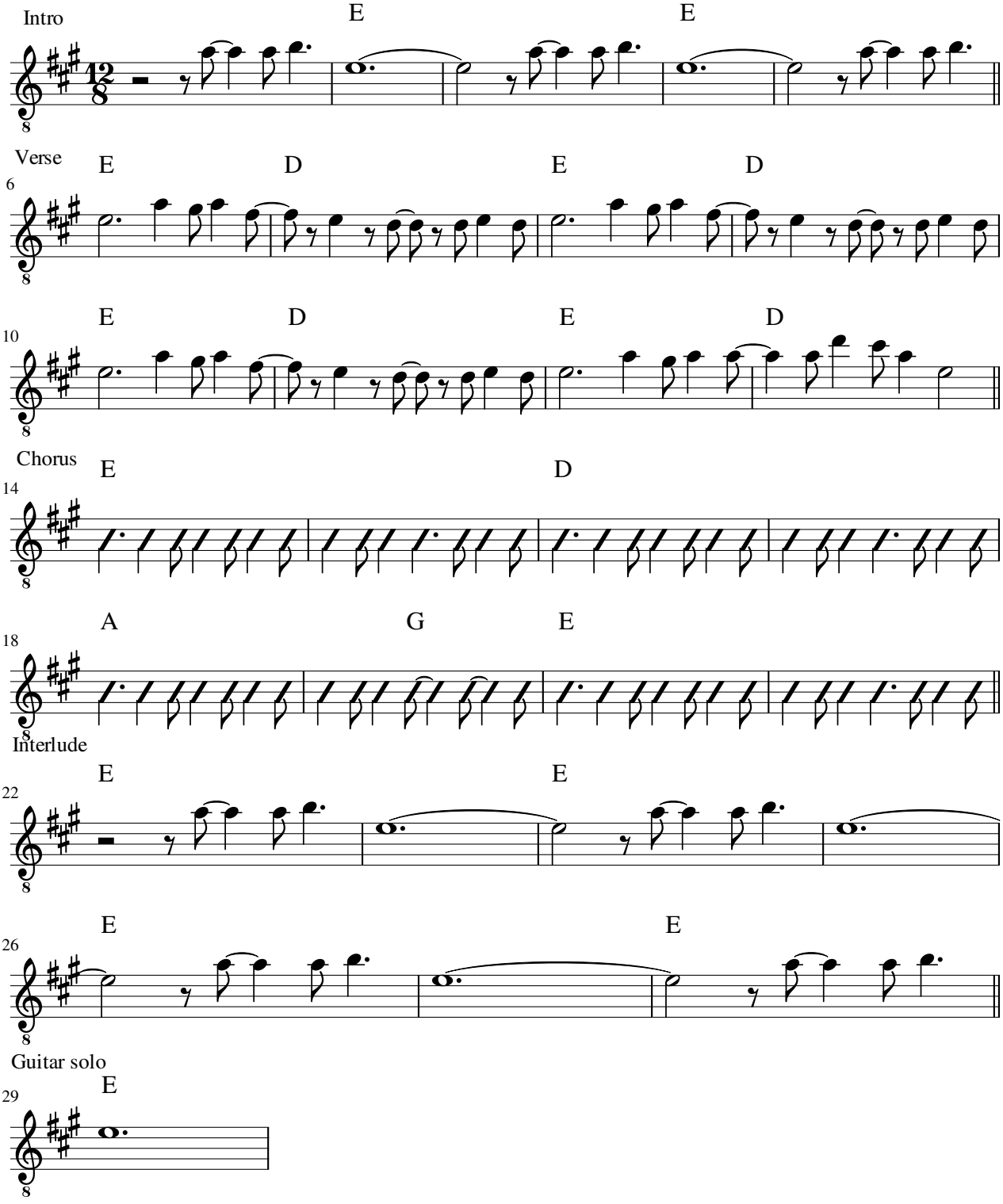
"No Sugar Tonight" - The Guess Who

Mixolydian



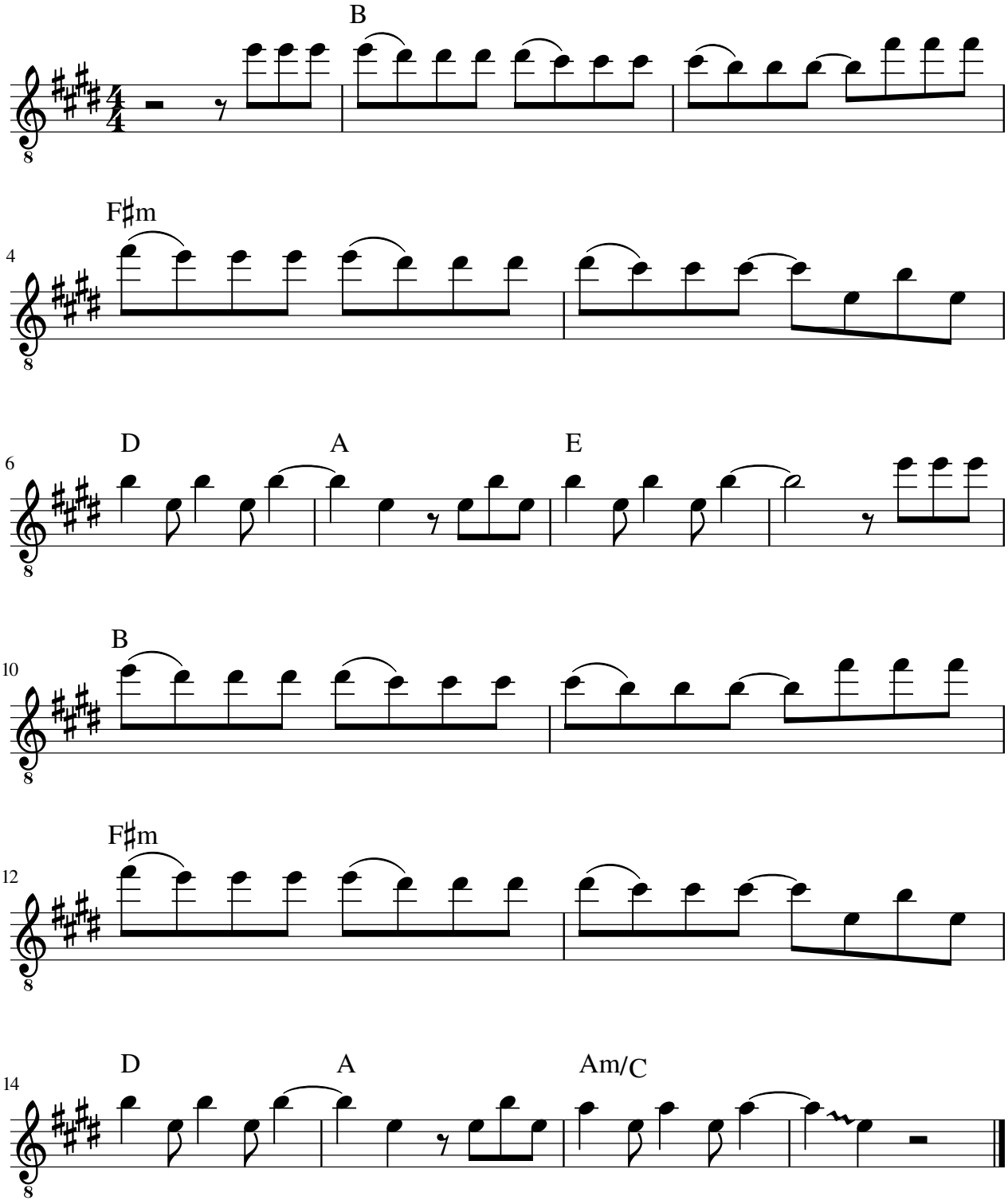
"No Rain" - Blind Melond

Mixolydian



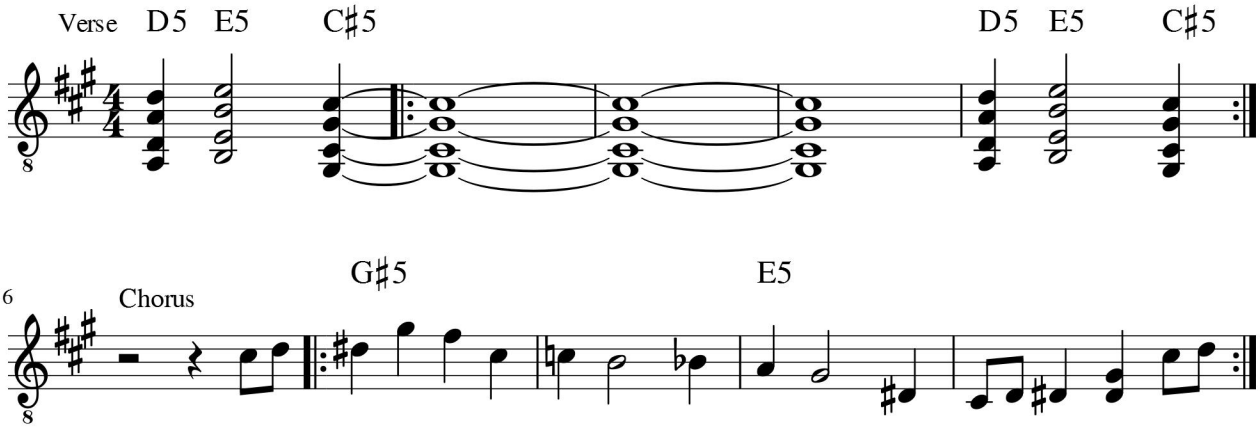
"Ordinary World" - Duran Duran

Mixolydian



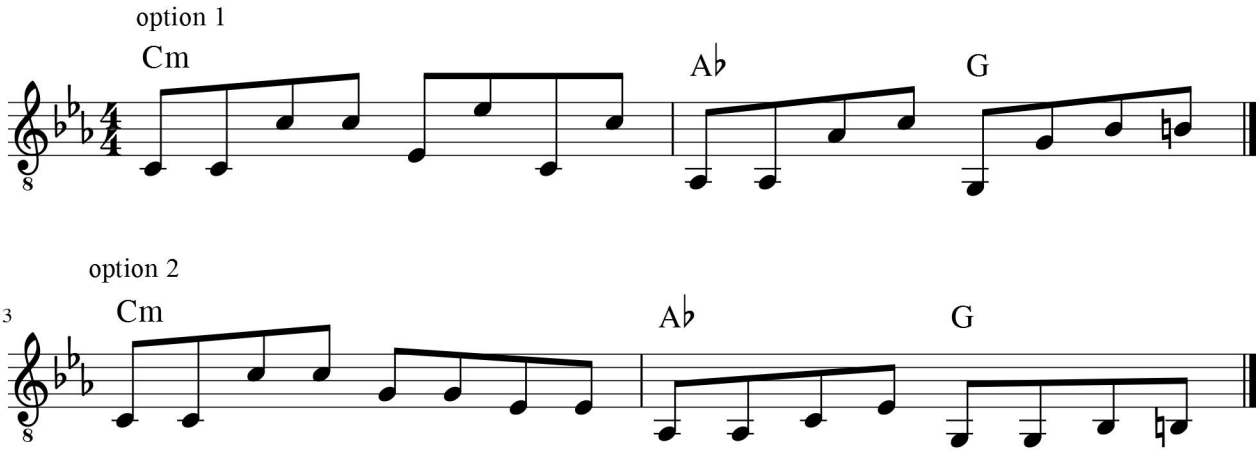
"Sludge Factory" - Alice in Chains

Phrygian



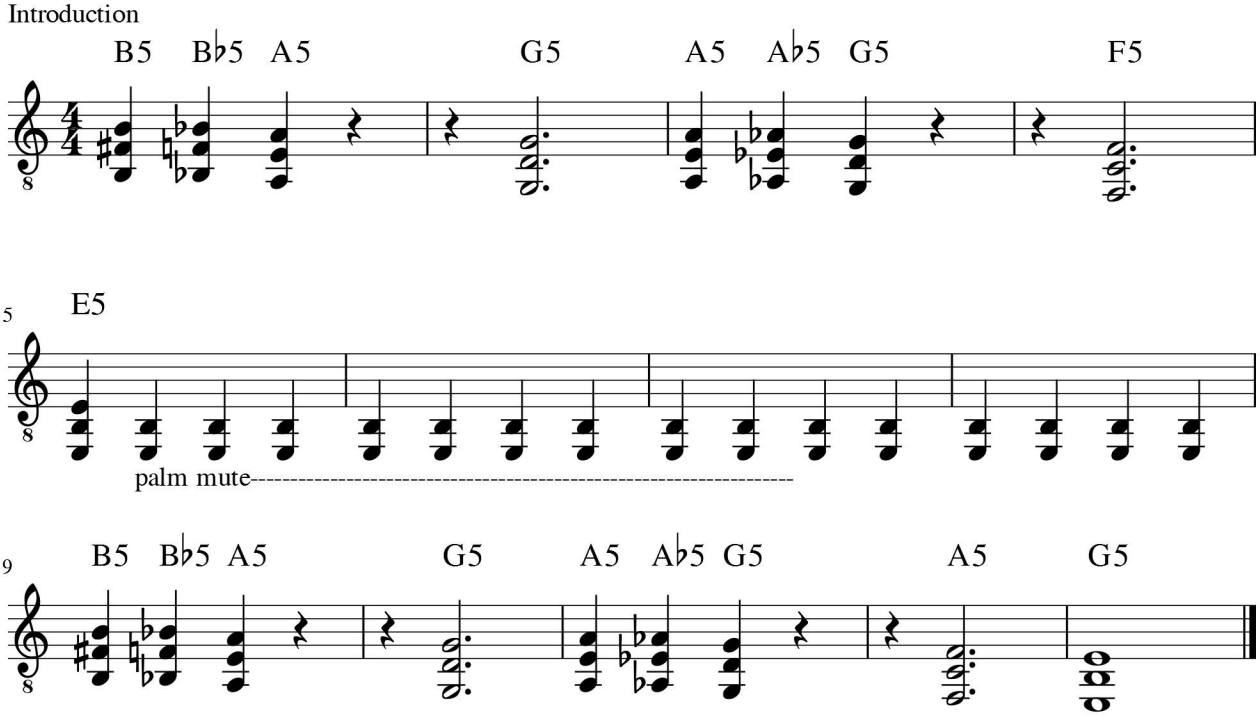
"Sweet Dreams" - The Eurhythmics

Aeolian



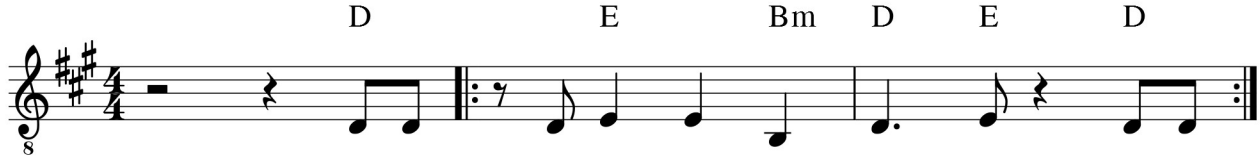
"This Was My Life" - Megadeth

Phrygian



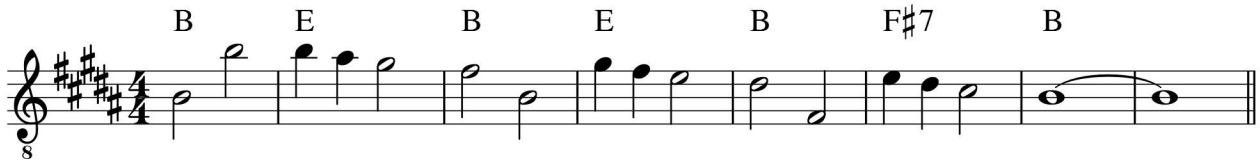
"Wanna Be Startin' Somethin'" - Michael Jackson

Pentatonic



"You Still Believe In Me" - The Beach Boys

Ionian

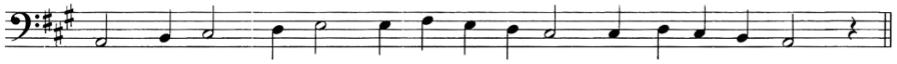


Appendix B: ASSESSMENT METHODS

Worksheet 1
Solfege - Fixed Do

Note naming: Write the correct solfege syllables above or below each of these melodies. (*Music for Sight Singing* , 3rd ed, p. 7, 32, 83, 87, 285-287)

3.



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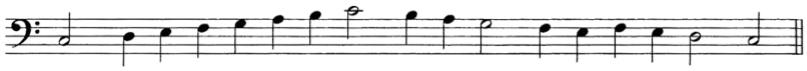

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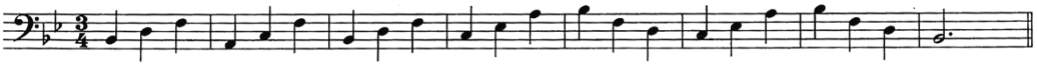

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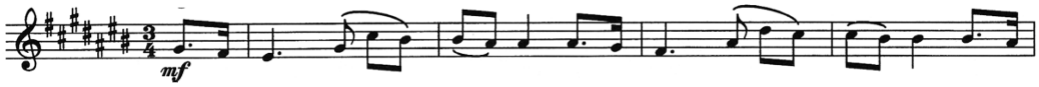

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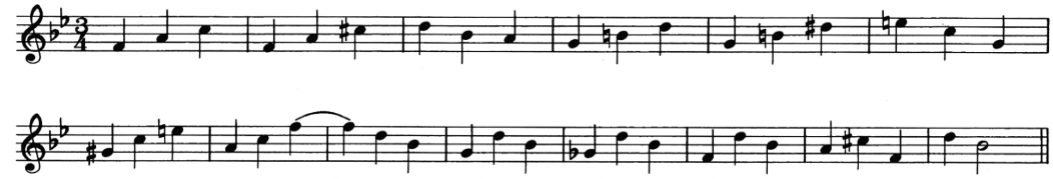

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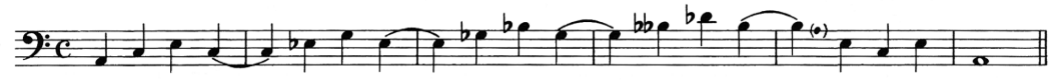

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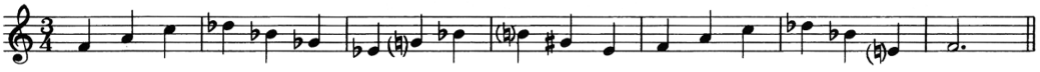

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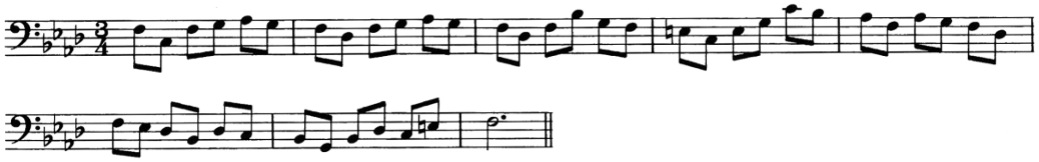
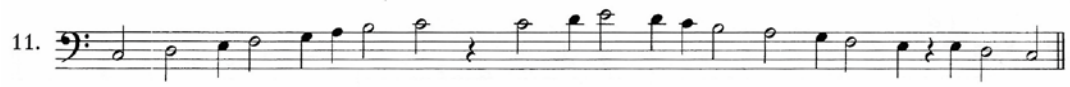


Worksheet 2
Scale Degree Identification

SD Identification: Write the scale degrees above or below each of these melodies. They are all in major keys. (*Music for Sight Singing* , 3rd ed, p. 7, 32, 43, 83)

11.



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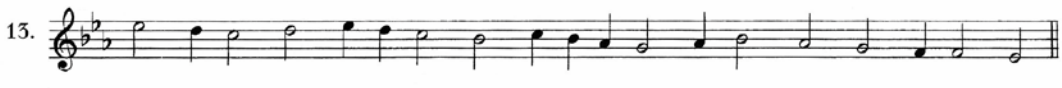

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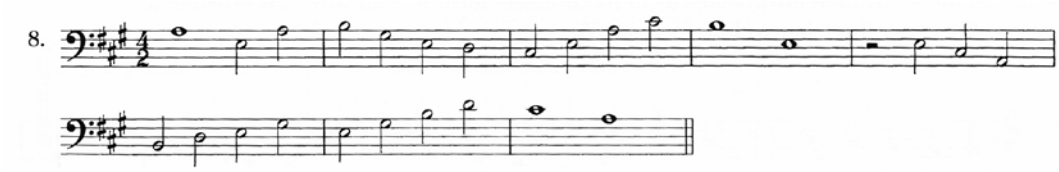

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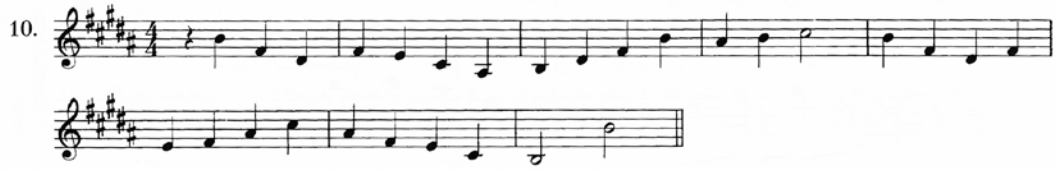

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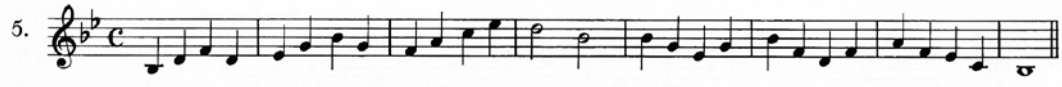

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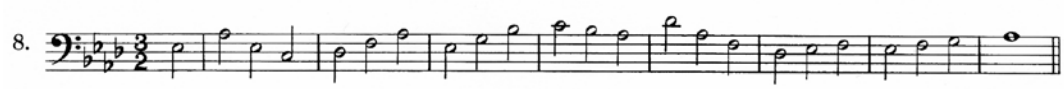

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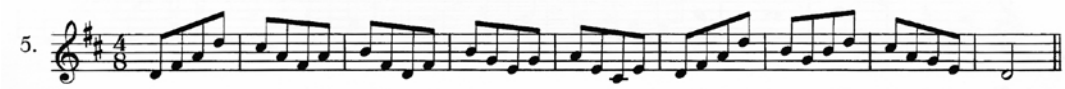

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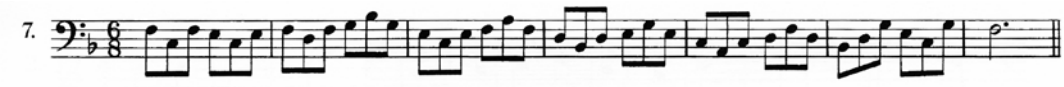


Worksheet 3
Triad Structures

Triad Creation: Fill in the note names, chord tones such as R, 3rd, 5th, and calculate the number of steps between each note.

Name:

Chord	Note			
Eb	Chord Tone			
	Steps:	R-3d		3rd-5th
		R-5th		

Chord	Note			
Dm	Chord Tone			
	Steps:	R-3d		3rd-5th
		R-5th		

Chord	Note			
D	Chord Tone			
	Steps:	R-3d		3rd-5th
		R-5th		

Chord	Note			
Bm	Chord Tone			
	Steps:	R-3d		3rd-5th
		R-5th		

Chord	Note			
Cb	Chord Tone			
	Steps:	R-3d		3rd-5th
		R-5th		

Chord	Note			
Gm	Chord Tone			
	Steps:	R-3d		3rd-5th
		R-5th		

Chord	Note			
A+	Chord Tone			
	Steps:	R-3d		3rd-5th
		R-5th		

Chord	Note			
C#°	Chord Tone			
	Steps:	R-3d		3rd-5th
		R-5th		

Chord	Note			
C+	Chord Tone			
	Steps:	R-3d		3rd-5th
		R-5th		

Chord	Note			
E°	Chord Tone			
	Steps:	R-3d		3rd-5th
		R-5th		

Chord	Note			
Bb+	Chord Tone			
	Steps:	R-3d		3rd-5th
		R-5th		

Chord	Note			
F#°	Chord Tone			
	Steps:	R-3d		3rd-5th
		R-5th		

Worksheet 4
Major Key Triads

Major Scale Structure Name:

Major Scale: G ___ ___ ___ ___ ___ ___ ___

Scale Degree: ___ ___ ___ ___ ___ ___ ___ ___

Steps: ___ ___ ___ ___ ___ ___ ___

Major Key Chord Chart

Chord	Note			
	Scale Deg			
RomNum	Chord Tone			
	Steps:	R-3d		3rd-5th
		R-5th		

Chord	Note			
	Scale Deg			
RomNum	Chord Tone			
	Steps:	R-3d		3rd-5th
		R-5th		

Chord	Note			
	Scale Deg			
RomNum	Chord Tone			
	Steps:	R-3d		3rd-5th
		R-5th		

Chord	Note			
	Scale Deg			
RomNum	Chord Tone			
	Steps:	R-3d		3rd-5th
		R-5th		

Chord	Note			
	Scale Deg			
RomNum	Chord Tone			
	Steps:	R-3d		3rd-5th
		R-5th		

Chord	Note			
	Scale Deg			
RomNum	Chord Tone			
	Steps:	R-3d		3rd-5th
		R-5th		

Chord	Note			
	Scale Deg			
RomNum	Chord Tone			
	Steps:	R-3d		3rd-5th
		R-5th		

Worksheet 5
Blues Progressions

Name:

Write a basic major blues progression in Db. Use Roman numerals and chord symbols.

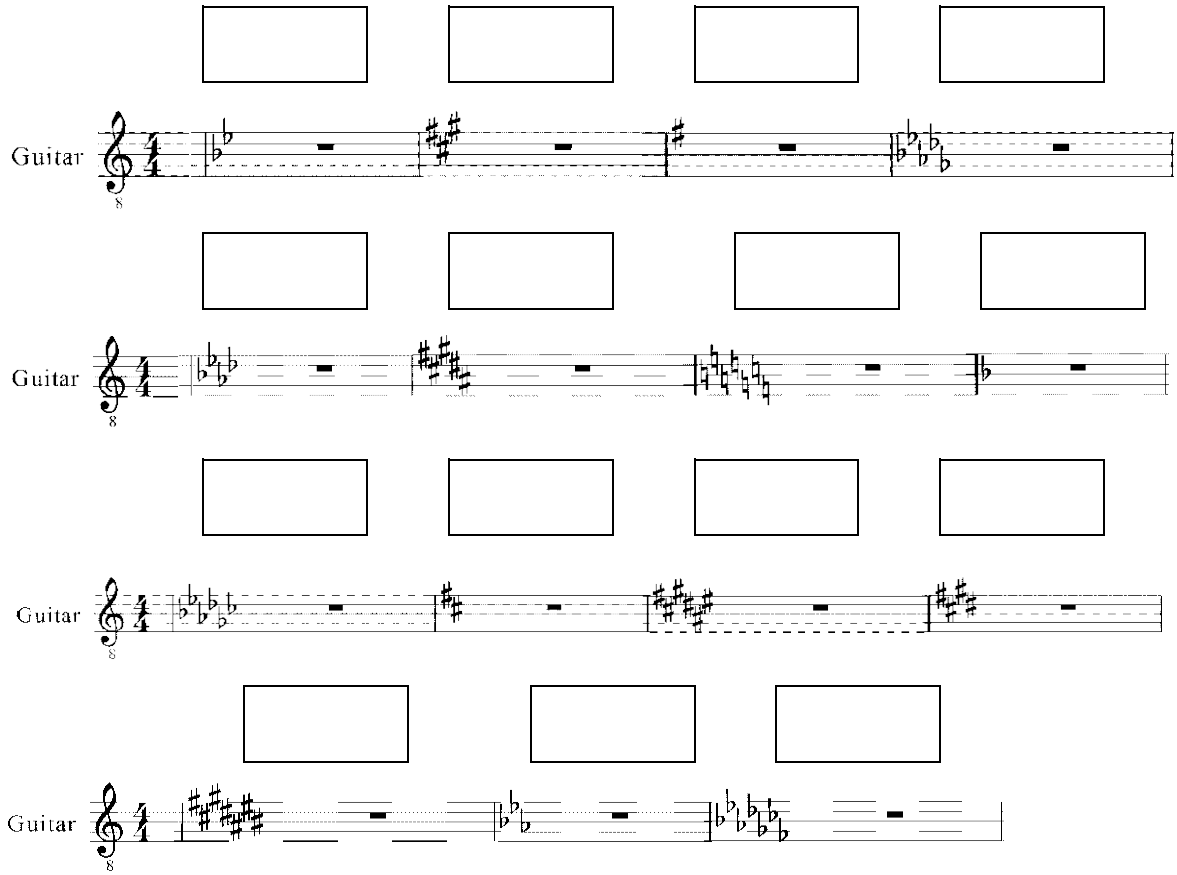
Write a major blues progression in B with the two chord substitutions. Use Roman numerals and chord symbols.

Write a basic minor blues progression in C#. Use Roman numerals and chord symbols.

Worksheet 6
Major Key Signatures

Name:

Name these major key signatures.



Worksheet 7
Minor Key Triads

Minor Scale Structure Name:

Minor Scale: G ___ ___ ___ ___ ___ ___ ___

Scale Degree: ___ ___ ___ ___ ___ ___ ___ ___

Steps: ___ ___ ___ ___ ___ ___ ___

Minor Key Chord Chart

Chord	Note			
	Scale Deg			
RomNum	Chord Tone			
	Steps:	R-3d		3rd-5th
		R-5th		

Chord	Note			
	Scale Deg			
RomNum	Chord Tone			
	Steps:	R-3d		3rd-5th
		R-5th		

Chord	Note			
	Scale Deg			
RomNum	Chord Tone			
	Steps:	R-3d		3rd-5th
		R-5th		

Chord	Note			
	Scale Deg			
RomNum	Chord Tone			
	Steps:	R-3d		3rd-5th
		R-5th		

Chord	Note			
	Scale Deg			
RomNum	Chord Tone			
	Steps:	R-3d		3rd-5th
		R-5th		

Chord	Note			
	Scale Deg			
RomNum	Chord Tone			
	Steps:	R-3d		3rd-5th
		R-5th		

Chord	Note			
	Scale Deg			
RomNum	Chord Tone			
	Steps:	R-3d		3rd-5th
		R-5th		

Worksheet 7
Minor Key Triads

Harmonic Minor Scale Structure

HarmMin Scale: G ___ ___ ___ ___ ___ ___ ___

Scale Degree: ___ ___ ___ ___ ___ ___ ___ ___

Steps: ___ ___ ___ ___ ___ ___ ___

Harmonic Minor Chord Chart You may leave chords repeated from the Natural Minor Scale blank.

Chord	Note			
	Scale Deg			
RomNum	Chord Tone			
	Steps:	R-3d		3rd-5th
		R-5th		

Chord	Note			
	Scale Deg			
RomNum	Chord Tone			
	Steps:	R-3d		3rd-5th
		R-5th		

Chord	Note			
	Scale Deg			
RomNum	Chord Tone			
	Steps:	R-3d		3rd-5th
		R-5th		

Chord	Note			
	Scale Deg			
RomNum	Chord Tone			
	Steps:	R-3d		3rd-5th
		R-5th		

Chord	Note			
	Scale Deg			
RomNum	Chord Tone			
	Steps:	R-3d		3rd-5th
		R-5th		

Chord	Note			
	Scale Deg			
RomNum	Chord Tone			
	Steps:	R-3d		3rd-5th
		R-5th		

Chord	Note			
	Scale Deg			
RomNum	Chord Tone			
	Steps:	R-3d		3rd-5th
		R-5th		

Worksheet 8
Transposing Progressions

Transposing: Label each chord with the correct Roman numeral. Then transpose the chord progression into each of the following keys. Be aware that many of these chord progressions make use of borrowed chords from the parallel major or minor key.

Name:

	A	F#m	D	E	A
RomNum	I				
Key: F#					
Key: G					
Key: Eb					
Key: B					

	C#m	G#m	E	B	C#m
RomNum	i				
Key: D#m					
Key: Em					
Key: Fm					
Key: Bm					

	Em	C	F#◦	B	Em
RomNum	i				
Key: G#m					
Key: Am					
Key: Bbm					
Key: C#m					

	Ab	Eb	Cm	Fm	Ab
RomNum	I				
Key: B					
Key: C					
Key: Db					
Key: E					

	B	F#	A	E	B
RomNum	I				
Key: E					
Key: F					
Key: Gb					
Key: A					

	D	G	F	Eb	D
RomNum	I				
Key: A					
Key: Bb					
Key: Cb					
Key: D					

	F#m	E	D	C#	F#m
RomNum	i				
Key: C#m					
Key: Dm					
Key: Ebm					
Key: Am					

	G#m	C#	A#m	F#	G#m
RomNum	i				
Key: Cm					
Key: Gm					
Key: Abm					
Key: Fm					

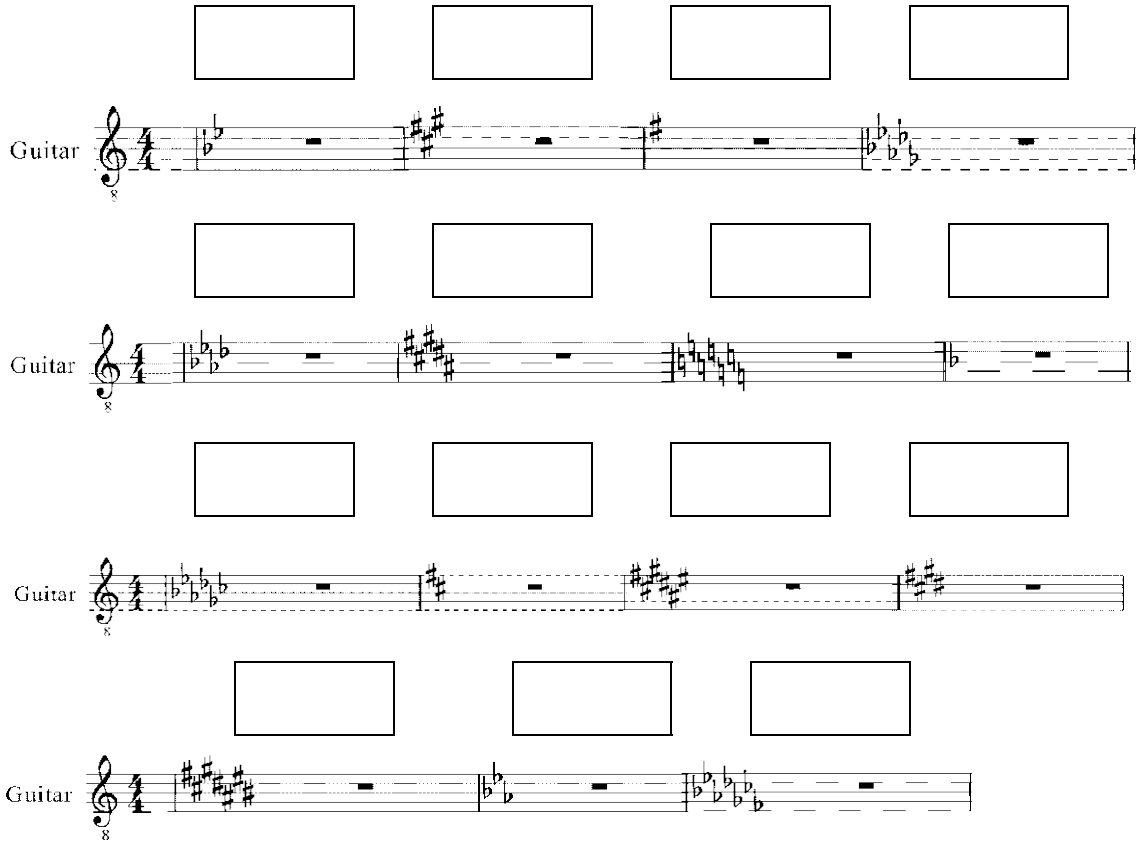
	Cm	Eb	Ab	Bb	Cm
RomNum	i				
Key: Bm					
Key: F#m					
Key: D#m					
Key: Ebm					

	Eb	Cb	Bb	Ab	Eb
RomNum	I				
Key: D					
Key: Ab					
Key: F#					
Key: G					

Worksheet 9
Minor Key Signatures

Name:

Name these minor key signatures.



Worksheet 10
Major Key 7th Chords

Major Scale Structure Name:

Major Scale: A ___ ___ ___ ___ ___ ___ ___

Scale Degree: ___ ___ ___ ___ ___ ___ ___ ___

Steps: ___ ___ ___ ___ ___ ___ ___

Major Key Chord Chart

Chord	Note				
	Scale Deg				
	Chord Tone				
RomNum	Steps	R-3rd			3rd-5th
		R-5th		3rd-7th	
		R-7th			

Chord	Note				
	Scale Deg				
	Chord Tone				
RomNum	Steps	R-3rd			3rd-5th
		R-5th		3rd-7th	
		R-7th			

Chord	Note				
	Scale Deg				
	Chord Tone				
RomNum	Steps	R-3rd			3rd-5th
		R-5th		3rd-7th	
		R-7th			

Chord	Note				
	Scale Deg				
	Chord Tone				
RomNum	Steps	R-3rd			3rd-5th
		R-5th		3rd-7th	
		R-7th			

Chord	Note				
	Scale Deg				
	Chord Tone				
RomNum	Steps	R-3rd			3rd-5th
		R-5th		3rd-7th	
		R-7th			

Chord	Note				
	Scale Deg				
	Chord Tone				
RomNum	Steps	R-3rd			3rd-5th
		R-5th		3rd-7th	
		R-7th			

Chord	Note				
	Scale Deg				
	Chord Tone				
RomNum	Steps	R-3rd			3rd-5th
		R-5th		3rd-7th	
		R-7th			

Worksheet 11
Minor Key 7th Chords

Minor Scale Structure Name:

Minor Scale: A ___ ___ ___ ___ ___ ___ ___

Scale Degree: ___ ___ ___ ___ ___ ___ ___ ___

Steps: ___ ___ ___ ___ ___ ___ ___

Minor Key Chord Chart

Chord	Note				
	Scale Deg				
	Chord Tone				
RomNum	Steps	R-3rd			3rd-5th
		R-5th		3rd-7th	
		R-7th			

Chord	Note				
	Scale Deg				
	Chord Tone				
RomNum	Steps	R-3rd			3rd-5th
		R-5th		3rd-7th	
		R-7th			

Chord	Note				
	Scale Deg				
	Chord Tone				
RomNum	Steps	R-3rd			3rd-5th
		R-5th		3rd-7th	
		R-7th			

Chord	Note				
	Scale Deg				
	Chord Tone				
RomNum	Steps	R-3rd			3rd-5th
		R-5th		3rd-7th	
		R-7th			

Chord	Note				
	Scale Deg				
	Chord Tone				
RomNum	Steps	R-3rd			3rd-5th
		R-5th		3rd-7th	
		R-7th			

Chord	Note				
	Scale Deg				
	Chord Tone				
RomNum	Steps	R-3rd			3rd-5th
		R-5th		3rd-7th	
		R-7th			

Chord	Note				
	Scale Deg				
	Chord Tone				
RomNum	Steps	R-3rd			3rd-5th
		R-5th		3rd-7th	
		R-7th			

Worksheet 11
Minor Key 7th Chords

Harmonic Minor Scale Structure

HarmMin Scale: A ___ ___ ___ ___ ___ ___ ___

Scale Degree: ___ ___ ___ ___ ___ ___ ___ ___

Steps: ___ ___ ___ ___ ___ ___ ___

Harmonic Minor Chord Chart You may leave chords repeated from the Natural Minor Scale blank.

Chord	Note				
	Scale Deg				
	Chord Tone				
RomNum	Steps	R-3rd			3rd-5th
		R-5th		3rd-7th	
		R-7th			

Chord	Note				
	Scale Deg				
	Chord Tone				
RomNum	Steps	R-3rd			3rd-5th
		R-5th		3rd-7th	
		R-7th			

Chord	Note				
	Scale Deg				
	Chord Tone				
RomNum	Steps	R-3rd			3rd-5th
		R-5th		3rd-7th	
		R-7th			

Chord	Note				
	Scale Deg				
	Chord Tone				
RomNum	Steps	R-3rd			3rd-5th
		R-5th		3rd-7th	
		R-7th			

Chord	Note				
	Scale Deg				
	Chord Tone				
RomNum	Steps	R-3rd			3rd-5th
		R-5th		3rd-7th	
		R-7th			

Chord	Note				
	Scale Deg				
	Chord Tone				
RomNum	Steps	R-3rd			3rd-5th
		R-5th		3rd-7th	
		R-7th			

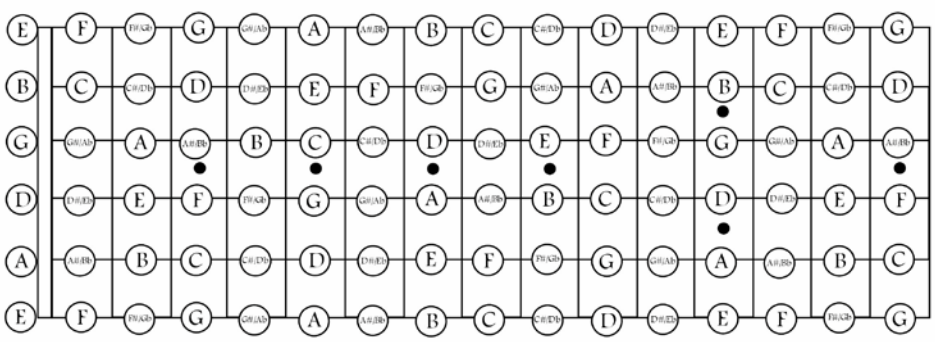
Chord	Note				
	Scale Deg				
	Chord Tone				
RomNum	Steps	R-3rd			3rd-5th
		R-5th		3rd-7th	
		R-7th			

Worksheet 12
7 Diatonic Modes - Guitar

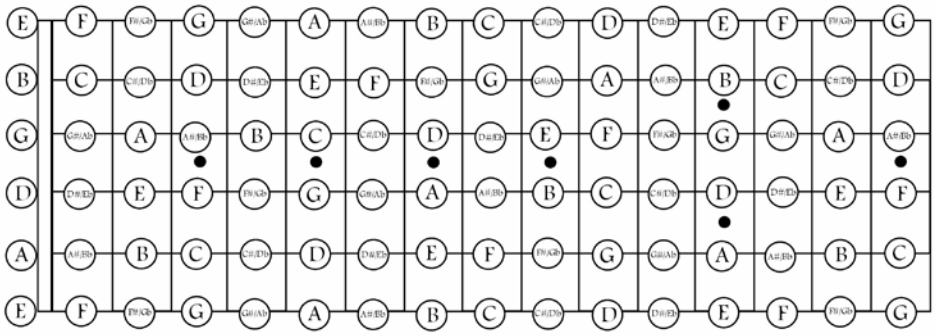
Fill in the notes that correspond with the designated scale in two locations on the neck.
Make the Root, 3rd, and 5th a different color than the remaining notes.

Name:

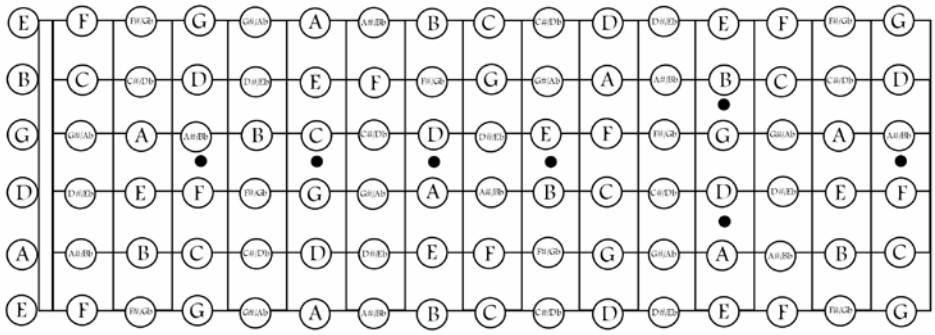
B Lydian



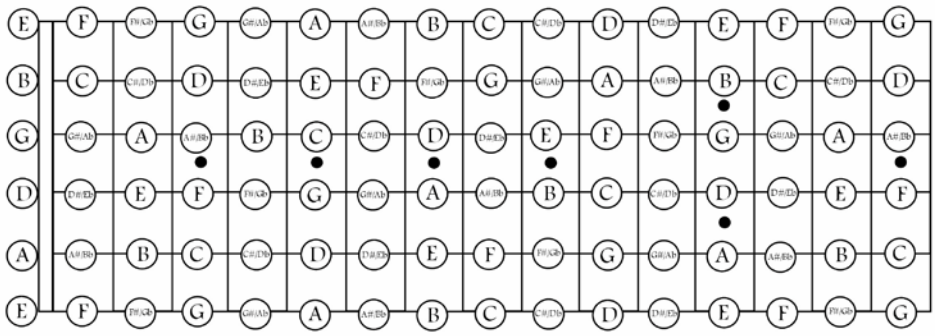
C Dorian



E Phrygian

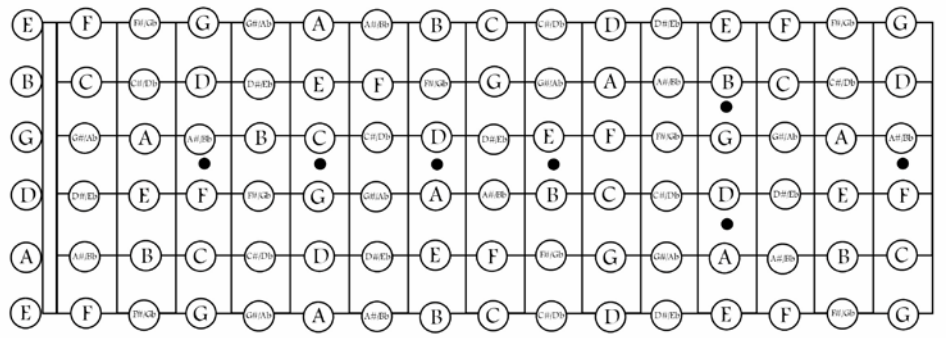


F# Minor

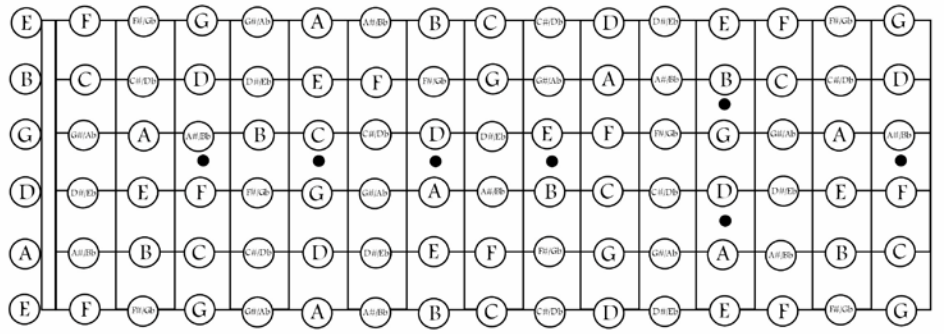


Worksheet 12
7 Diatonic Modes - Guitar

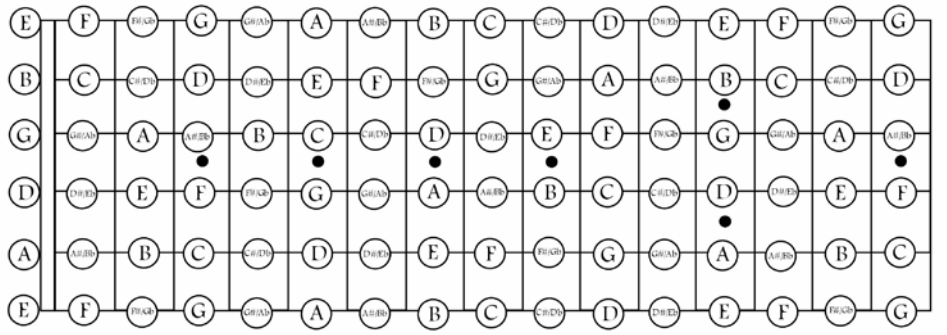
Eb Major



F Mixolydian



D# Locrian

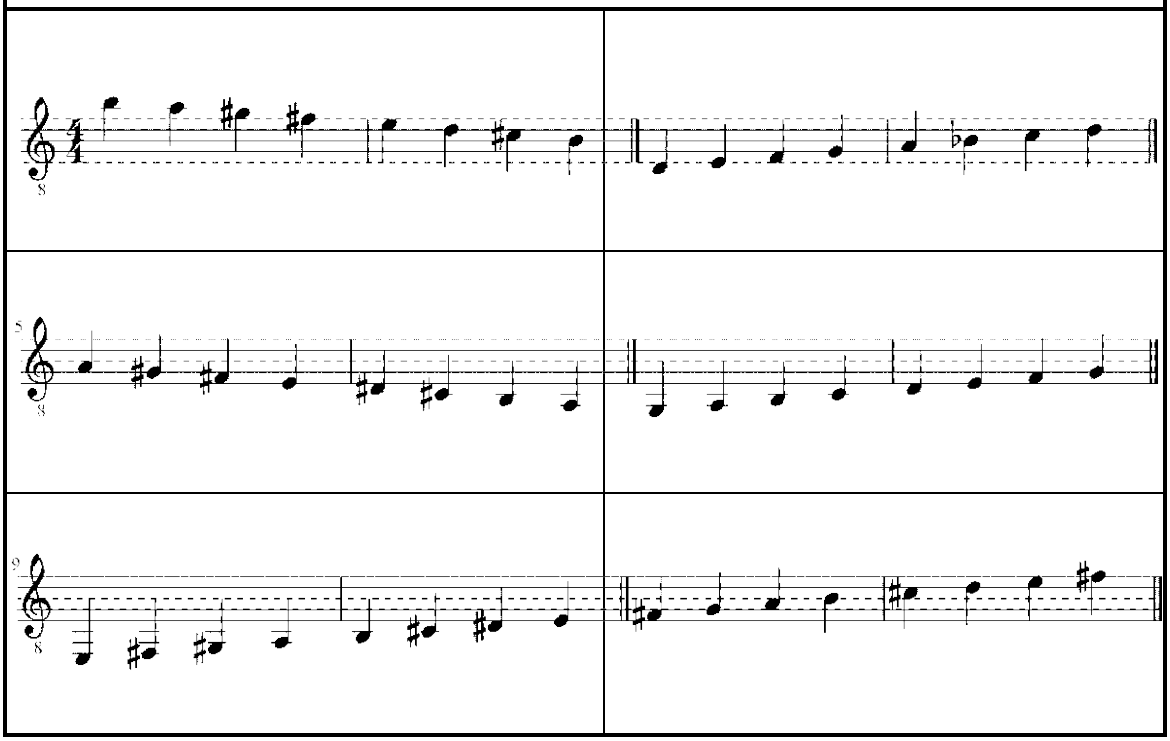


Home Exam 1

1) Play a blues progression accompaniment on the guitar.
2) Perform a solo over a blues track of your choice with the guitar. Submit a written copy of your solo as well. The written solo will be used for grading performance accuracy as well as compositional integrity.
3) Sing a solo over a blues track of your choice. Submit a written copy of your solo as well. The written solo will be used for grading performance accuracy as well as compositional integrity. This solo must be different from the guitar solo.
4) Perform all ascending and descending major scale shapes in the key of A major. These may be combined into two or three octaves at a time if desired. These must all be recorded in a single take.
5) Sing 1 ascending and 1 descending pentachord major scale in any key(s) using solfege or scale degrees.

Exam 1
Chords and Scales

Write the name of the major scale to which each of these 8 note scales belongs and circle the tonic pitch(es).



Triad Creation: Fill in the note names, chord degrees such as R, 3rd, 5th, and calculate the number of steps between each note.

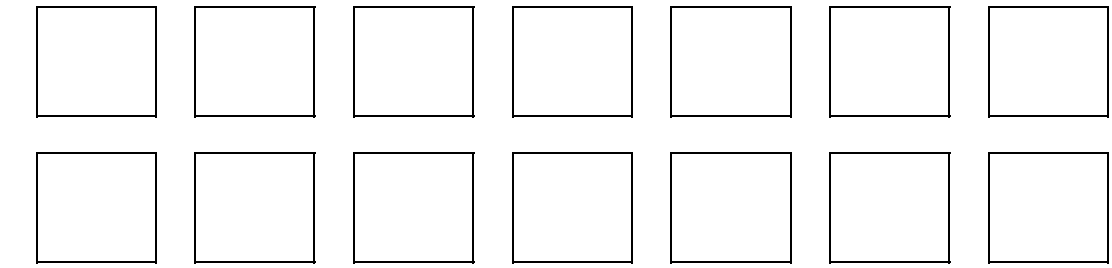
E				Gm			
A				Am			
C#				Cm			
F				G#m			
Chord Tone				Chord Tone			
Steps:	R-3d		3rd-5	Steps:	R-3d		3rd-5
	R-5th				R-5th		

Db+				G#°			
G+				B°			
Ab+				D#°			
Bb+				Eb°			
Chord Tone				Chord Tone			
Steps:	R-3d		3rd-5	Steps:	R-3d		3rd-5
	R-5th				R-5th		

Exam 1
Chords, Scales, & Solfege

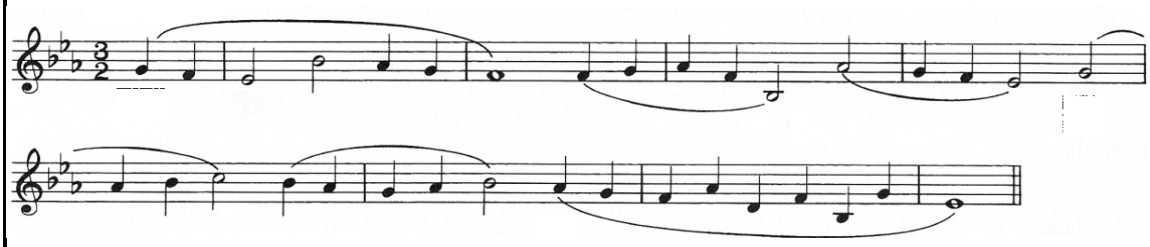
Write a one octave A Major scale.

Then write the seven chords from the A Major scale using Roman numerals and chord symbols.

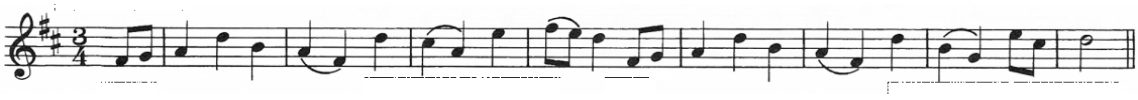


Note naming: Write the solfege below and scale degree above each note. (*Music for Sight Singing* , 3rd ed, p. 48)

1



2



Exam 1
Blues Progressions

Write a basic major blues progression in Eb. Use Roman numerals and chord symbols.

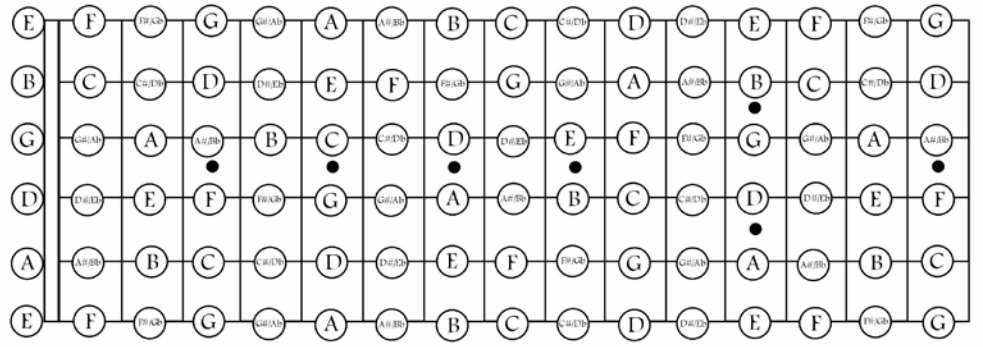
Write a major blues progression in F# with the two chord substitutions. Use Roman numerals and chord symbols.

Write a basic minor blues progression in G. Use Roman numerals and chord symbols.

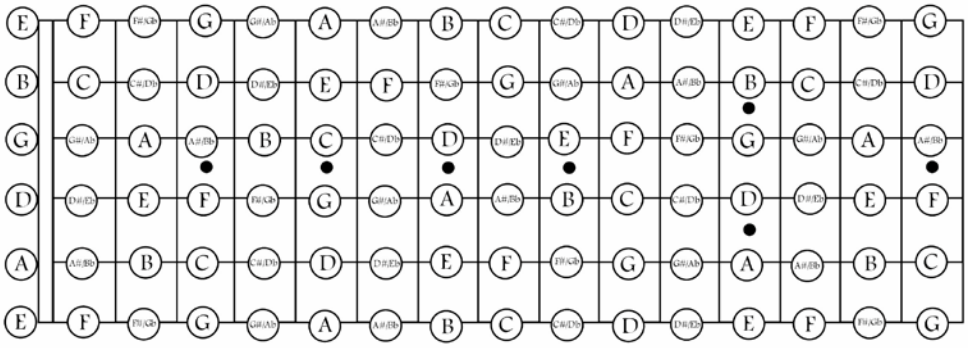
Exam 1
Guitar Scales

Fill in the notes that correspond with the designated scale in two locations on the neck.

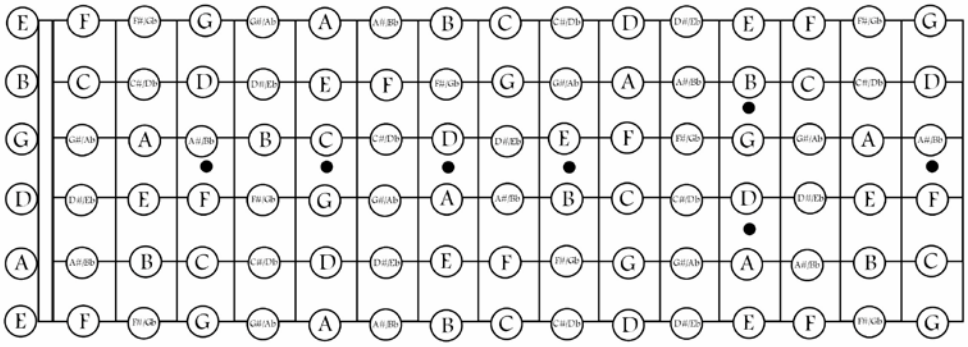
C Major
Two ascending shapes



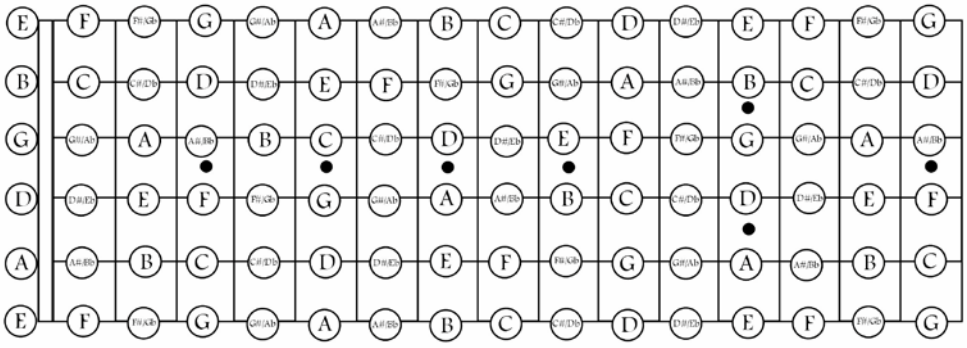
E Major
Two descending shapes



A Major Pentatonic
Two ascending shapes



D Major Pentatonic
Two descending shapes



Home Exam 2

1) Perform a solo over a song selected from the second half of the semester with the guitar. Submit a written copy of your solo as well. The written solo will be used for grading performance accuracy as well as compositional integrity.

2) Sing a solo over a song of your choice selected from the second half of the semester. Submit a written copy of your solo as well. The written solo will be used for grading performance accuracy as well as compositional integrity. This solo must be different from the guitar solo.

3) Play all 7 diatonic modes through the cycle on the guitar with one octave ascending patterns (up and down).

4) Play all 7 diatonic modes through the cycle on the guitar with one octave descending patterns (down and up).

5) Sing all 7 diatonic modes through the cycle with one octave ascending patterns (up and down).

6) Sing all 7 diatonic modes through the cycle with one octave desending patterns (down and up).

7) Sing the pattern R-3rd-5th-3rd-R through the cycle in any key.

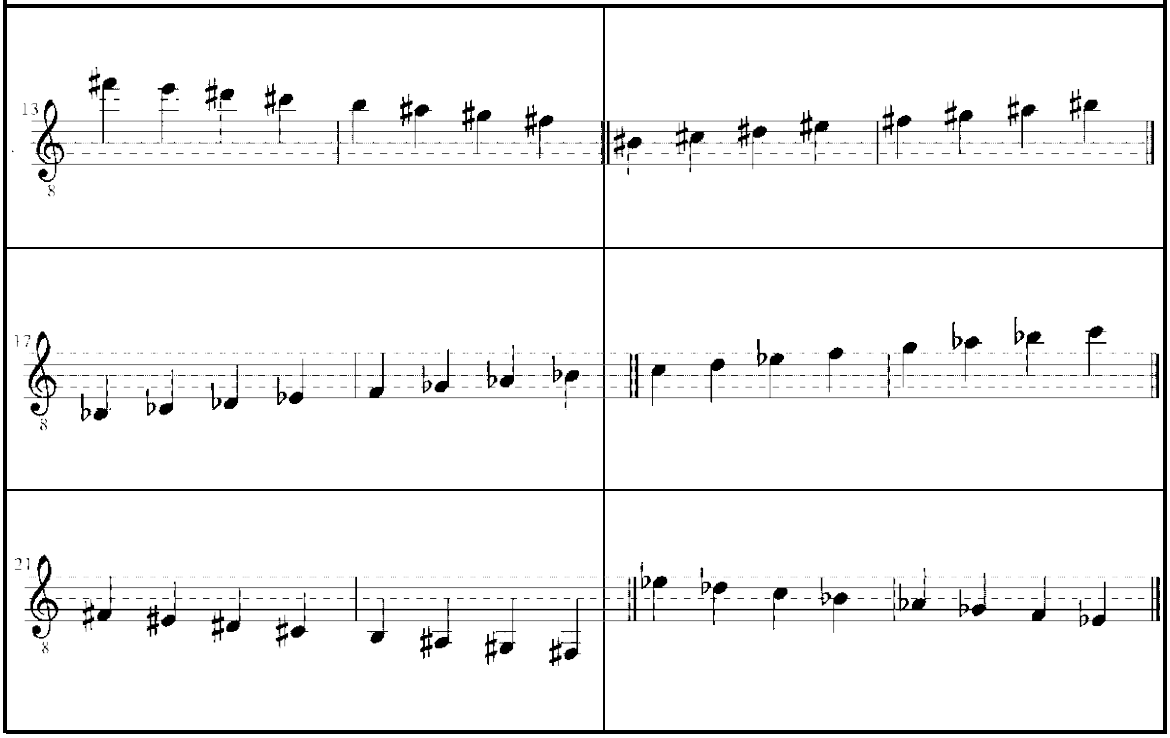
8) Sing the pattern R-5th-3rd-5th-R (down and up) through the cycle in any key.

Exam 2
Chords and Scales

1) Below the scale, write the name of the major and minor keys to which the scale belongs.

2) Above the scale, write the name of the mode.

3) Above the scale, write the name of the seventh chord this scale represents.



Using scale degrees, each beginning on 1, write the scale patterns for the seven modes.	
Lydian	
Ionian	
Mixoldian	
Dorian	
Aeolian	
Phrygian	
Locrian	

Exam 2
Seventh Chords

Seventh Chord Creation: Fill in the note names, chord degrees such as R, 3rd, 5th, 7th, and calculate the number of steps between each note.

DM7				
FM7				
EbM7				
BM7				
Chord Tone				
Steps	R-3rd			3rd-5th
	R-5th			3rd-7th
	R-7th			

F#m7				
Cm7				
Em7				
Gm7				
Chord Tone				
Steps	R-3rd			3rd-5th
	R-5th			3rd-7th
	R-7th			

C7				
A7				
Bb7				
Fb7				
Chord Tone				
Steps	R-3rd			3rd-5th
	R-5th			3rd-7th
	R-7th			

DmM7				
AmM7				
DbmM7				
C#mM7				
Chord Tone				
Steps	R-3rd			3rd-5th
	R-5th			3rd-7th
	R-7th			

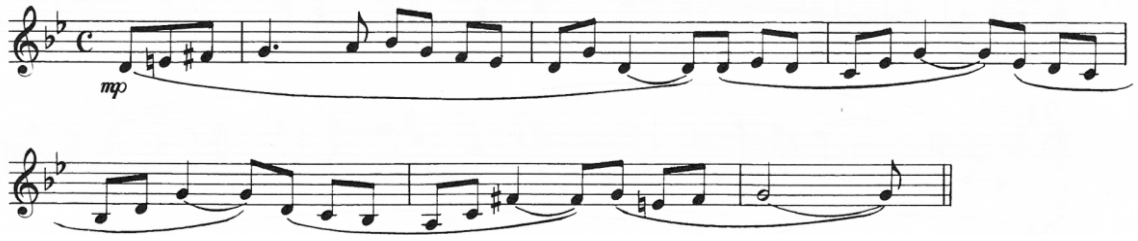
Exam 2
Chords, Scales, and Solfege

Write a one octave E Minor scale.

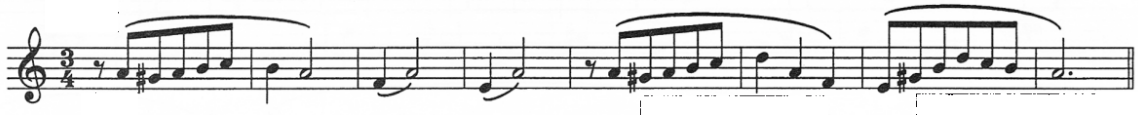
Then write the seven chords from the E Minor scale using Roman numerals and chord symbols.

Write the solfege below and scale degree above each note in these minor key melodies. (*Music for Sight Singing* , 3rd ed, p. 62-63)

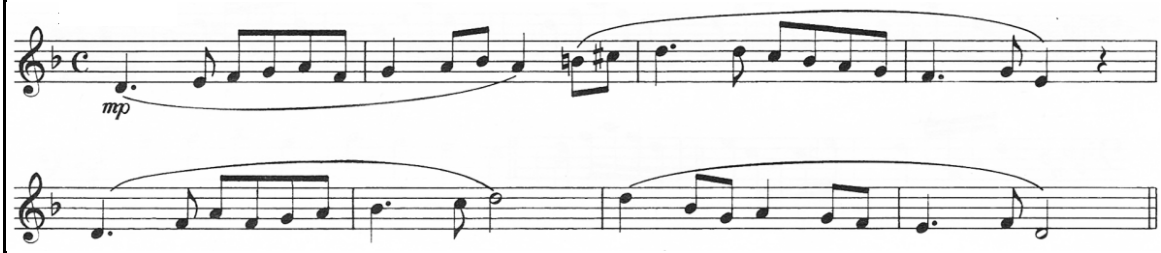
1



2



3



Exam 2
Major and Minor Progressions

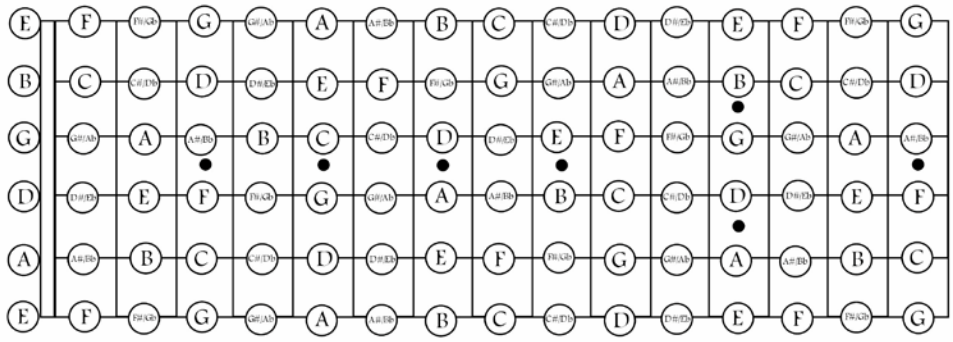
Write the following vi - ii - V - I progressions with their respective 7ths.	
F	
Gb	
A	
Bb	
E	

Write the following bVI - ii - V - i progressions with their respective 7ths.	
C	
D	
B	
F#	
E	

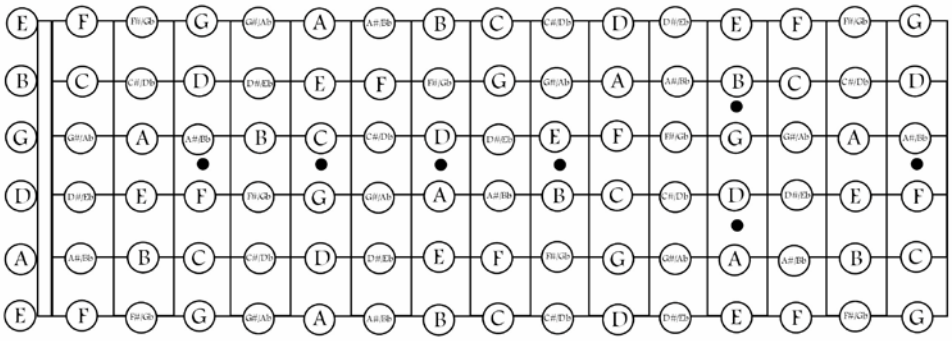
Exam 2
Guitar Scales

Fill in the notes that correspond with the designated scale in two locations on the neck.

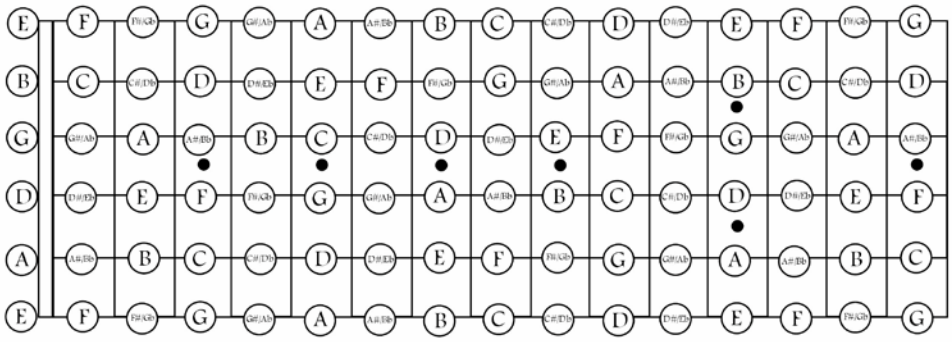
A Phrygian
Two ascending shapes



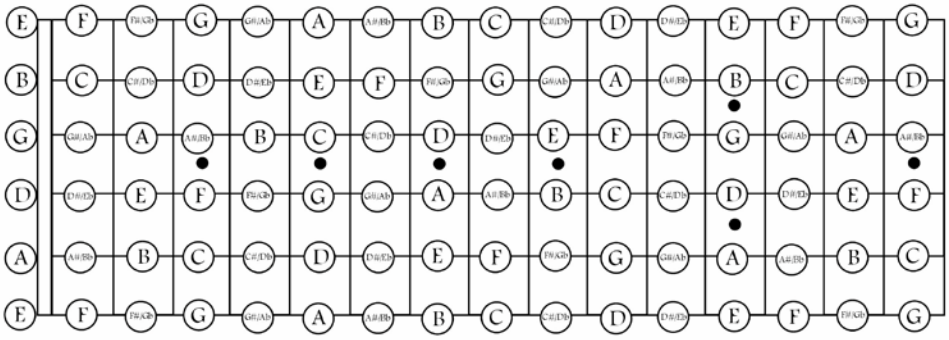
C Minor
Two ascending shapes



E Lydian
Two ascending shapes



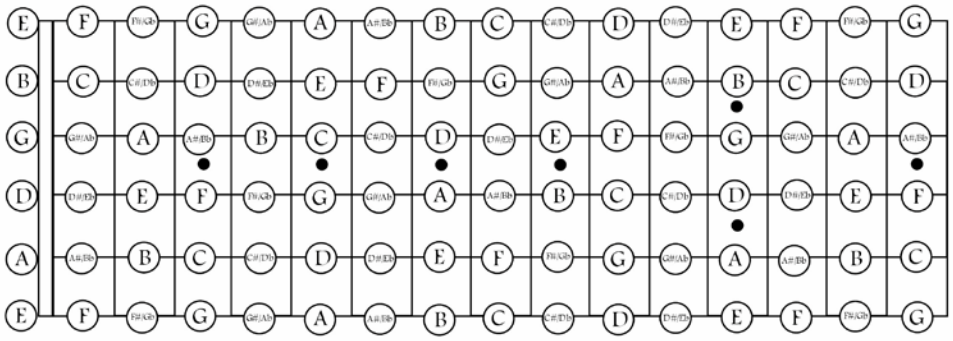
B Minor Pentatonic
Two ascending shapes



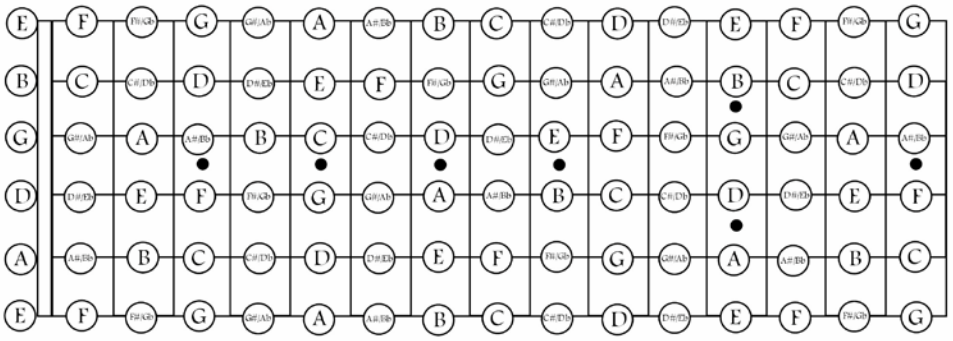
Exam 2
Guitar Scales B

Fill in the notes that correspond with the designated scale in two locations on the neck.

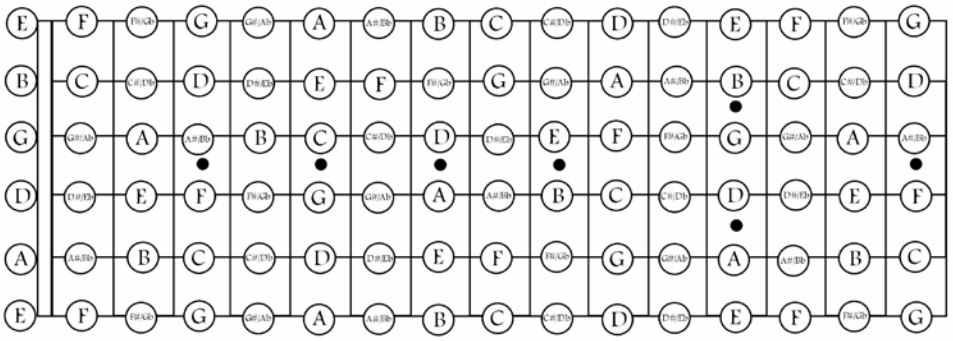
D Locrian
Two descending shapes



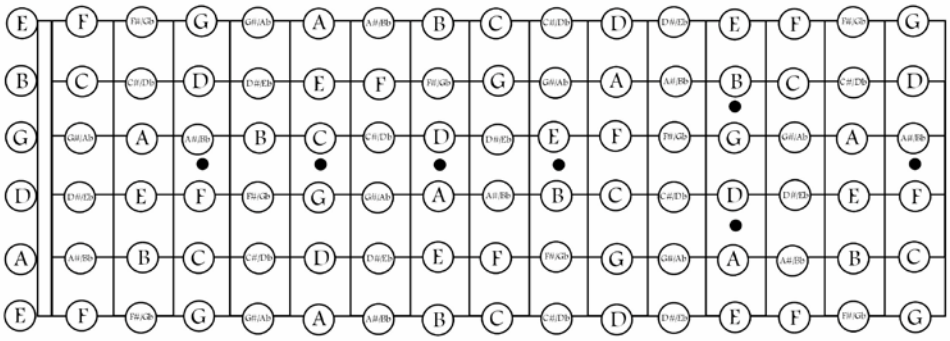
G Dorian
Two descending shapes



B Mixolydian
Two descending shapes



Bb Minor Pentatonic
Two descending shapes



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